



UNITED STATES MARINE CORPS

MARINE CORPS AIR STATION  
BQX 89100  
YUMA, ARIZONA 85369-9100

IN REPLY REFER TO:

StaO 3710.6H Ch 1

3DF4

13 MAR 1996

STATION ORDER 3710.6H Ch 1

From: Commanding Officer

To: Distribution List

Subj: RANGE REGULATIONS FOR THE USE OF AIRCRAFT TARGETS,  
RESTRICTED AREAS AND MILITARY OPERATION AREAS/AIR TRAFFIC  
CONTROL ASSIGNED AIRSPACE (MOA/ATCAA) SCHEDULED BY MARINE  
CORPS AIR STATION, YUMA, ARIZONA

1. Purpose. To direct a pen change to the basic Order.
2. Action. On page 2, add paragraph 4.d. Range Containment. It is the FAA Western Region, Los Angeles Center and the Naval representative at the Western Region position that the intent of FAA orders and OPNAVINST 3710.7P concerning the boundaries of Special Use Airspace (SUA) is to keep pilots that are using SUA's within those boundaries as well as to keep nonparticipating aircraft out. Range containment is primarily the pilot's responsibility. Yuma Range Control will assist on a workload permitting basis. Special Use Airspace users shall remain within both the horizontal and lateral limits of MCAS Yuma scheduled and controlled Special Use Airspace at all times. Any intentional spillout could constitute a flight violation and could be pursued as such by the FAA.
3. Filing Instructions. File this Change transmittal immediately behind the signature page.

A. M. TORRANCE

By direction

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UNITED STATES MARINE CORPS

MARINE CORPS AIR STATION  
BOX 99100  
YUMA, ARIZONA 85369-9100

StaO 3710.6H Ch 2/  
3ATC

10 JUL 1998


STATION ORDER 3710.6H Ch 2

From: Commanding Officer

To: Distribution List

Subj: RANGE REGULATIONS FOR THE USE OF AIRCRAFT TARGETS,  
RESTRICTED AREAS AND MILITARY OPERATION AREAS/AIR TRAFFIC  
CONTROL ASSIGNED AIRSPACE (MOA/ATCAA) SCHEDULED BY MARINE  
CORPS AIR STATION, YUMA, ARIZONA

1. Purpose. To direct a pen change to the basic Order.
2. Action. On page 3, change paragraph 6.f. to read "Whenever an operating area or target will not be used by a unit, Range Scheduling shall be notified by 2100Z the day prior to the scheduled time block in order to release the area to another unit or Los Angeles Center."
3. Filing Instructions. File this Change transmittal immediately behind the signature page of the basic Order.

  
C. J. TURNER

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UNITED STATES MARINE CORPS  
MARINE CORPS AIR STATION  
BOX 99100  
YUMA, ARIZONA 85369-9100

StaO 3710.6H Ch 3  
3DF4  
1 DEC 2000

STATION ORDER 3710.6H Ch 3

From: Commanding Officer  
To: Distribution List

Subj: RANGE REGULATIONS FOR THE USE OF AIRCRAFT TARGETS, RESTRICTED  
AREAS AND MILITARY OPERATING AREAS/AIR TRAFFIC CONTROL ASSIGNED  
AIRSPACE (MOA/ATCAA) SCHEDULED BY MARINE CORPS AIR STATION, YUMA,  
ARIZONA

Encl: (1) New page inserts to StaO 3710.6H

1. Purpose. To transmit new page inserts and pen changes to the basic Order.

2. Action

a. Remove pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 of enclosure (3) of the basic Order and replace with pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14 contained in the enclosure in this change transmittal.

b. Pen change the term "Moving Sands" throughout the entire Order, with the new term "Urban Target Complex (UTC) now referred to as Yodaville".

3. Summary of Change. Enclosure (3) of the basic Order has been extensively modified and should be reviewed in its entirety.

4. Change Notation. Paragraphs 13.k and 13.m of the new page inserts contain changes not previously published and are denoted by an asterisk.

5. Filing Instructions. File this change transmittal immediately behind the signature page of the basic Order.



MARK E. CONDRA

DISTRIBUTION: B plus 25 (3DF2)

URBAN TARGET COMPLEX (YODAVILLE) (R-2301 WEST)

Urban Target Complex (R-2301 West).

1. Common Name(s). Urban Target Complex (Yodaville), formerly known as Moving Sands. As of December 2000, the range formerly known as Moving Sands will hereby be known as Yodaville or the Urban Target Complex at Yodaville.

2. Location. Within R-2301 West, west of the Gila Mountains 32° 18' 53"N / 114° 13' 15"W along the U.S. Mexican border to 32° 23' 45"N / 114° 28' 30"W to 32° 30' 00"N / 114° 28' 30"W to 32° 30' 00"N / 114° 31' 00"W to 32° 35' 00"N / 114° 31' 00"W to 32° 39' 40"N / 114° 28' 30"W to 32° 40' 30"N / 114° 18' 30"W to origin. The Urban Target Complex is centered at 32° 26' 16"N / 114° 19' 54"W.

3. Airspace. The Urban Target Complex lies beneath the Yodaville airspace which is further divided into Low and High airspace. The Low airspace extends from the surface up to 15,000 feet MSL. Yodaville High airspace overlies the target complex from 16,000 feet to FL200. This airspace is intended to facilitate higher altitude bombing patterns. Normal scheduling of Yodaville airspace does not include Yodaville High. If mission requirements require this airspace, it must be specifically scheduled when submitting range requests. When both Low and High airspace are scheduled, the continuous airspace from surface to FL200 is available for use.

	Yodaville Low	Yodaville High
Floor	Surface	16,000 feet MSL
Ceiling	15,000 feet MSL	FL200

Table C-1

4. Overlapping and Adjacent Areas.

(a). Cactus West is located on the extreme western edge of the R-2301 West from the surface to 15,000 feet MSL. Cactus West High airspace overlies the Cactus West Target from 16,000 feet MSL to FL200. **Note: When scheduling the Urban Target Complex, Cactus West airspace MUST BE SCHEDULED concurrently.**

(b). West Coast Tactical Aircrew Combat Training System Range (WCTACTS) is located immediately East of the Gila Mountains from 200 feet (for No Drop Weapons Training or NDWT) or 5,000 feet MSL (ACM)

ENCLOSURE (3)

SOP FOR YTRC

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of Person Incorporated Change
<input type="checkbox"/> 3	1 Dec 2000	010130	Lepl Howard
<input type="checkbox"/> 2	10 July 1998	010130	Lepl Howard
<input type="checkbox"/>			
<input type="checkbox"/>			
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UNITED STATES MARINES CORPS  
MARINE CORPS AIR STATION  
BOX 99100  
YUMA, ARIZONA 85369-9100

IN REPLY REFER TO:  
StaO 3710.6H  
3DF4  
31 Mar 1995

STATION ORDER 3710.6H

From: Commanding Officer  
To: Distribution Officer

Subj: RANGE REGULATIONS FOR THE USE OF AIRCRAFT TARGETS, RESTRICTED AREAS AND MILITARY OPERATING AREAS/AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (MOA/ATCAA) SCHEDULED BY MARINE CORPS AIR STATION, YUMA, ARIZONA

Ref: (a) FACS FACSDINST 3120.1C  
(b) MCAS Yuma and USA Yuma Proving Ground Letter of Agreement dtd 1 April 1987 (NOTAL)  
(c) CINCPACFLINST 3624.1A (NOTAL)  
(d) StaO 3700.4F  
(e) Laser Safety Survey dtd 2 April 1993 (NOTAL)  
(f) MOA between Commanding Officer MCAS Yuma and Commanding Officer Naval Warfare Special Operations Group One. (NOTAL)

Encl: (1) OPAREA REQUEST FORMAT  
(2) BARRY M. GOLDWATER AERIAL GUNNERY RANGE (R-2301 WEST)  
(3) UTC (R-2301 WEST)  
(4) CACTUS WEST (R-2301 WEST)  
(5) YUMA TACTS (R-2301 WEST)  
(6) AUXILLARY FIELDS  
(7) IMPERIAL ATCAA  
(8) CHOCOLATE MOUNTAINS (R-2507 N - S) AIR TO AIR GUNNERY RANGE  
(9) CHOCOLATE MOUNTAINS (R-2507 N - S) IMPACT AREA  
(10) R-2306 (A, B, C, D, & E)  
(11) R-2307  
(12) R-2308 (A, B, & C)  
(13) R-2309  
(14) R-2510 (A & B)  
(15) R-2512  
(16) ABEL NORTH/SOUTH/BRAVO/EAST MOA/ATCAA's  
(17) DOME MOA/ATCAA  
(18) KANE EAST/WEST/SOUTH MOA/ATCAA's  
(19) QUAIL MOA/ATCAA  
(20) TURTLE MOA/ATCAA  
(21) EARLY SHELF  
(22) RANGE FREQUENCY CHART  
(23) HOLD HARMLESS AGREEMENT  
(24) RANGE PERMIT FOR RECREATIONAL ACCESS TO R-2301 WEST

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1. Purpose. This instruction publishes all pertinent information relative to scheduling, prioritization, location, description, type operations, and ordnance compatibility of the restricted areas and MOA/ATCAA's scheduled by the Commanding Officer, Marine Corps Air Station Yuma, Arizona (MCAS Yuma).

2. Cancellation. Station Orders 3710.6G and 3700.5.

3. General. MCAS Yuma schedules all or portions of eight restricted areas: R-2301W, R-2306, R-2307, R-2308, R-2309, R-2507, R-2510, R-2512, and ten MOA/ATCAA's: Abel North/South/Bravo/East, Dome, Quail, Turtle, Imperial, and Kane East/West/South. Included within these ranges are two special weapons targets, five close air support range complexes, five air-to-air ranges, and one Tactical Aircrew Combat Training Systems (TACTS). NAS Miramar schedules two TACTS Ranges. The Commanding Officer, MCAS Yuma, is charged with the air and ground safety of all operations in the ranges, targets, and restricted areas covered by this Order; therefore, where there is a conflict with the provisions of any other Instruction/Order, the provisions of this Order will prevail.

4. Information

a. Restricted Area. Restricted areas contain airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Restricted areas denote the existence of unusual, often invisible, hazards to aircraft such as artillery firing, aerial gunnery or guided missiles. Penetration of restricted areas without authorization from the using or controlling agency may be extremely hazardous to the aircraft and its occupants.

b. Military Operating Area. MOA's consist of airspace of defined vertical and lateral limits established for the purpose of separating certain military training activities from IFR traffic. These areas are depicted on En Route and Low Altitude Charts.

c. Air Traffic Control Assigned Airspace. An ATCAA is similar to a MOA except that the airspace is totally contained within Class A airspace.

5. Action. Units desiring to utilize the restricted areas or MOA's will comply with the general instructions below and the specific instructions delineated in enclosures (1) through (24) of this Order.

6. Scheduling

a. Per the references (a) and (c), the Commanding Officer, MCAS Yuma, is the designated scheduling activity for all targets, restricted areas, and MOA/ATCAA's covered in this Order.

b. Users may submit requests as defined under "scheduling document and lead time" in enclosures (2) through (20). Requests should be in the format shown in enclosure (1).

c. Users may request targets, restricted areas, and MOA/ATCAA's covered by this Order for reasonable periods approximating the time necessary to meet anticipated requirements. Working areas and targets are normally assigned on a "first come, first served" basis except where a priority exists as defined in reference (a), section I. Normal lead time to minimize conflicts is 30 to 90 days.

d. All requests for range times will normally be confirmed by the 15th of each month. A confirmation message or fax will be sent by MCAS Yuma Range Scheduling after receipt of the OPAREA Request confirming range times. For further information, contact Yuma Range Scheduling at DSN 951-2214/2215.

e. Scheduling conflicts that cannot be resolved by this scheduling activity will be submitted to the scheduling authority (Fleet Area Control and Surveillance Facility (FACSFAC), NAS North Island), by the requesting unit, for resolution.

f. Whenever an operating area or target will not be used by a unit, Range Scheduling shall be notified by 2100Z the day prior to the scheduled time block in order to release the area to another unit or Los Angeles Center."

g. All guided munitions (except TOW & HELLFIRE missiles) and drone aircraft operations will require prior approval from Yuma Range Management. In addition to OPAREA requests, requesting units will submit message traffic addressed to H&HS MCAS Yuma AZ//RMD// or fax (DSN 951-2216) with the following information:

- (1) Unit
- (2) Requested Range Time and Date
- (3) Target Location
- (4) Emitter/Flare drop location if applicable
- (5) Plan to ingress/egress emitters onto/off range to include MCAS Yuma EOD presence if applicable
- (6) FAC/TACP location if applicable
- (7) Firing azimuth and altitude
- (8) Splash pattern/safety fan description for release altitude and azimuth

h. Silence, on the part of Yuma Range Management towards any request, IS NOT CONSENT!

i. All guided munitions will be utilized in such a manner as to accommodate current range regulations and limitations. Surface danger zones, impact zones, splash patterns, safety fans and kinetic potential of each Munition must fall entirely within the restricted areas.

7. Ground Entry/Access Into Restricted Areas

a. General

(1) Ground Forces

(a) The surface areas beneath the restricted areas that make up the Yuma Training Range Complex are not intended nor funded for the training of ground forces. These areas are intended primarily for the training of aviation forces of the United States. In most instances the Marine Corps does not own the land involved but is charged with the scheduling of it and thereby assumes responsibility for management under various Federal statutes.

(b) The use of the ranges for training of ground maneuver units will not be approved. The use of the ranges for the training of aviation units who are supported by ground units for the enhancement of the aviation training will be approved on a case by case basis.

(2) EOD

(a) Unexploded Ordnance. Unexploded ordnance is scattered throughout the restricted areas. Unexploded bombs, rockets, cannon rounds and other types of warheads may be encountered anywhere, lying on the ground or partially buried. These munitions can still explode even though they have lain in the desert for decades. In fact, age may have rendered them more unstable and more prone to detonation by disturbance than when they were actually dropped or fired. No one can tell if ordnance is safe from its appearance and it must all be treated as if deadly. For your own safety, keep away from all ordnance. Note or mark the area in which the Munition is found and report its location to MCAS Yuma EOD at (520) 341-2788.

(b) Units desiring access to Observation Posts/Gun Positions within R-2507 will schedule an EOD range sweep ten days prior to entry into the restricted area with MCAS Yuma EOD, DSN: 951-2788.

(c) Within R-2507, bivouacking will not be allowed anywhere other than designated and approved Observation Posts/Gun Positions.

(d) Within R-2507, maneuver between Observation Posts/Gun Positions will not be authorized until routes have been cleared by EOD technicians. Proposed routes will be submitted to MCAS Yuma EOD at least ten days prior to exercise commencement.

(3) Civilian Access

(a) Restricted area land is for the most part remote



desert, without water, roads or habitation. It is therefore suggested that these precautionary procedures be followed:

- 1 Have a minimum of two people in your party.
- 2 Have a four wheel drive vehicle.
- 3 Have a two day supply of food and water in excess of the period for which clearance is granted.
- 4 Leave an expected time of return with Yuma Range Management and your command.

(b) Military training is scheduled in all restricted areas and may include low flying aircraft, helicopter landing zones, electronic relay sites, base camps, and unexploded ordnance. Civilians will avoid military sites.

(c) The Cabeza Prieta National Wildlife Refuge is located in R-2301 West. MCAS Yuma has no authority to authorize access into this area. Permission may be granted by contacting the following agency.

Cabeza Prieta National Wildlife Refuge  
1011 North Secano Ave  
Ajo, Arizona 85321  
(520) 387-6483

(d) Ground entry into R-2507 North via Siphon 10 and Gas Line Road will require prior coordination with NSWG-1 units located north of Siphon 10 (Camp Billy Machen). Contact the Camp Supervisor at (619) 339-5360 or NSWG-1 at DSN 577-5392.

(e) Four wheel drive vehicles do great damage to the desert environment. All personnel must drive on existing roads or jeep trails to preserve plant and wildlife habitats.

(4) Scheduling

(a) Official Business

1 Military personnel requesting entry into restricted areas will submit an OPAREA Request as delineated in enclosure (1). OPAREA requests shall include specifics concerning ground personnel and equipment emplacement in item I, remarks section. Address correspondence to H&HS MCAS Yuma AZ//RMD// and info H&HS MCAS Yuma AZ//ATC/RNG SKED/EOD//.

2 Units setting up base camps and remaining overnight shall receive a range brief from Yuma Range Management personnel. The range brief will be attended by all OIC's/SNCOIC's

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prior to unit entry into any restricted area.

3 Civilian personnel desiring entry into restricted areas will schedule with Yuma Range Management personnel. Prior to entry into any restricted area, a "Hold Harmless Agreement", enclosure (23), will be filled out and retained by Yuma Range Management.

4 Entry and exit times will be strictly adhered to without exception. Commands/employers will monitor their personnel and inform Yuma Range Management immediately if personnel are overdue. After work hours, contact Yuma PMO, DSN: 951-2361.

(b) Recreational Access

1 All military/civilian personnel using R-2301 West for recreation shall contact Yuma Range Management.

2 A "Hold Harmless Agreement", enclosure (23) will be filled out and maintained by Yuma Range Management. These forms can be completed by mail or fax.

3 A Range Permit, to include an authorization number, will be completed and retained on hand by all parties utilizing MCAS Yuma restricted areas.

4 Phonecon with Yuma Range Management must be made by all personnel prior to entry and immediately after exiting restricted areas. After working hours and during weekends, an answering machine will take all calls. Range permit and authorization number must be clearly stated.

5 R-2301 West, R-2306 Bravo/Charlie/Delta (north of Cibola Road only) and R-2308 are the only restricted areas open for recreation. All other areas are off limits:

a Contact Yuma Proving Ground Range Control (PMO after normal working hours) for clearance into R-2306 at (520) 328-2047 or DSN: 899-2047.

b R-2308 encompasses the Kofa National Wildlife Refuge which is open to the public. Contact the US Fish & Wildlife at (520) 783-7861 for information.

8. Laser Report. Per the provision of reference (e), each unit utilizing any OPAREA covered by this order and conducting laser operations shall submit to Yuma Range Management the following information no later than the next working day.

a. Aerial Laser

(1) Mission Number

- (2) Command
- (3) Date
- (4) Range utilized and range time
- (5) Pilot/co-pilot's name and rank
- (6) Gunners name and rank (if applicable)
- (7) Laser safety supervisor name and rank
- (8) Type and number of aircraft
- (9) Type laser
- (10) Laser firing incidents
- (11) Laser firing duration (each incident)
- (12) Laser target location (each incident)
- (13) Direction and altitude of lase
- (14) Remarks

b. Ground Laser

- (1) Mission Number
- (2) Command
- (3) Date
- (4) Range utilized and range time
- (5) Operator name and rank
- (6) Laser safety supervisor name and rank
- (7) Type laser
- (8) Laser firing incidents
- (9) Laser firing duration (each incident)
- (10) Laser target location (each incident)
- (11) Direction of lase
- (12) Remarks

9. Safety Precautions. All MCAS Yuma scheduled OPAREA's are located within Federal Aviation Agency (FAA) designated Restricted Areas, MOA/ATCAA's and shall not be entered unless clearance has been received as per paragraph 4 and enclosures (2) through (24) of this order.

a. All restrictions pertaining to individual OPAREA's as set forth in the appropriate enclosures to this Order must be observed.

b. All aircraft squawk Mode 3A/C within the OPAREAs unless otherwise authorized by ATC.

c. When carrying ordnance, aircraft will exercise caution and avoid flying over populated areas.

d. A live ordnance and drop tank jettison area is located west of Cactus West on the TACAN, Channel 84, 130 degree radial/13 DME. Run-in heading is 180 degrees magnetic. Ordnance should be dearmed prior to jettison. Report to Yuma Range Control item(s) and number(s) of ordnance jettisoned.

e. Units operating within the Yuma OPAREAs shall not conduct training flights involving the use of machine guns, automatic weapons,

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rockets, bombs of any type, flares, or searchlights without specific assignment of an area or target, and then only in the assigned area or target.

f. All operations, including dummy runs, are prohibited when targets have not been scheduled through Air Traffic Control/Range Scheduling.

g. Aircraft and Forward Air Controllers (FAC) will visually confirm all targets are clear prior to ordnance drops.

h. Periodic closing of targets to facilitate maintenance will occur. Pilots will comply with Range Control instructions regarding closed targets and altitude restrictions.

i. Range Control personnel have authority to refuse the use of the target to any flight or aircraft violating the provisions of this order.

j. It is emphasized that proper caution will be exercised at all times when firing on towed targets. All firing will be conducted to ensure the projectiles, ejected links and cases fall within designated impact areas.

10. Cost. Due to range cleanup requirements imposed on Yuma Range Management, units may be tasked to provide funding in order to utilize designated drop areas with certain types of munitions. Refer questions to Yuma Range Management at DSN 951-3651/3318.

11. ECM Procedures. Information concerning the proper use and restrictions governing ECM operations is updated annually by message. Contact the Frequency Manager at DSN 951-3269 for Date-Time-Group and current information.

12. Fouled Range. Unauthorized personnel occasionally trespass onto government property and foul restricted area target complexes. Fouled ranges not only hamper mission readiness, but pose a significant hazard to the trespassers themselves. This is a growing problem and cause for concern. In order for Yuma Range Management to determine the magnitude of this dilemma and apply appropriate corrective measures, documentation is necessary. Any mission interrupted or aborted due to a fouled range shall be immediately reported to Yuma Range Control and followed by message traffic addressed to H&HS MCAS Yuma AZ//RMD//. Message traffic shall render a complete description as to the cause and location of foul, percentage of ordnance NOT dropped, and training objectives lost.

a. R-2507. Trespassers found within range boundaries, spotted by either an airborne crew or authorized ground personnel, is cause to abort all ordnance operations. If the trespassers are visually seen departing the range and scheduled range times remain, ordnance

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operations may resume. However, if trespassers remain in the restricted area, the departing aircrew will pass to Yuma Range Control the trespassers exact location, direction of travel, and description. Yuma Air Traffic Control will inform Range Management of the trespassers and also pass this information to the next aircrew utilizing the restricted area. The follow-on aircrew will overfly the range to determine if the trespassers have either departed or remain within range boundaries. If the trespassers remain on the range, ordnance operations must again be delayed/cancelled until the trespassers are off the range; however, if trespassers are not found, ordnance operations may resume. At all times, ordnance operations are the responsibility of the Pilot-In-Command or the FAC.

b. Since not all scenarios can be planned or foreseen, any unit may close the restricted area by contacting Air Traffic Control when in their minds, an unsafe condition to either aircrew or ground personnel (authorized or unauthorized) exists. The range will not be re-opened until the unit that closed the range feels that the original situation no longer exists or has been remedied.

13. Trespasser Response. The most effective deterrent against unauthorized ground intrusions into range areas and the illegal removal of government material absent the ability to completely eliminate access to the range, is a vigorous program of detection, apprehension and prosecution. The Range Management Department, Air Traffic Control Facility, Provost Marshal's Office and Staff Judge Advocate shall maintain, periodically assess and upgrade (where feasible) their individual capabilities to ensure that MCAS Yuma maintains such a program.

14. Mishaps. Mishaps occurring in airspace or ground under the cognizance of MCAS Yuma AZ will be reported to MCAS Yuma Range Management and Station Safety via message.

15. Deployments. Organizations deploying to MCAS Yuma AZ will coordinate their stay with Fleet Liaison personnel at DSN: 951-3039/3515. Refer to Enclosure 1, Item K.

16. Concurrence. The Commanding General of 3rd Marine Aircraft Wing and the Commanding Officers of VMFT-401 and MAWTS-1 concur in and make this directive applicable to their respective commands.

A. M. Torrance  
By direction

DISTRIBUTION: B plus 25 (3DF2)



OPAREA REQUEST FORMAT

1. Request for OPAREA and services generally should be UNCLASSIFIED and should be furnished using item designators described below. Omit nonapplicable items:

- ITEM A. Requesting unit. Specify all subordinate units if applicable
- ITEM B. Exercise name if applicable
- ITEM C. Exclusive or co-usage (EXCLUSIVE FOR HAZARDOUS OPERATIONS)
- ITEM D. Restricted Area, MOA or ATCAA requested. Include desired altitudes and airspace subdivision
- ITEM E. Date-Time-Group of requested periods and type training to be conducted. All times are MCAS Yuma AZ local(T). Arizona does not observe Daylight Savings Time.
- ITEM F. Weapon Information
  - (1) Type/number of aircraft
  - (2) Type/total amount of ordnance to be utilized
  - (3) Target location/CAS Range to be utilized
  - (4) Type of LASER to be utilized if applicable
    - (a) Location to commence/cease lase
    - (b) Direction of lase
    - (c) Altitude of lase
  - (5) Max operating altitude or max ordnance trajectory as applicable
- ITEM G. Acceptable alternate area(s), date(s), or time(s), and amplifying or miscellaneous remarks
- ITEM H. Priority as reflected in section I of reference (a).
- ITEM I. Ground Personnel requirements
  - (1) Number of personnel
  - (2) Number of vehicles and type
  - (3) Ingress/Egress method
    - (a) Exact routes if over land
  - (4) Exact location of personnel (i.e. OP/GP)

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(5) Weapon information

- (a) Type weapon
- (b) Type ordnance/amount
- (c) Target location
- (d) Type of LASER to be utilized if applicable

- 1 Location to commence/cease lase
- 2 Direction of lase

(e) Max ordnance trajectory as applicable

- (6) Remarks. Any other data concerning specific requirements; i.e., will personnel remain overnight, drop zones, FARP locations, Waste/HAZMAT disposal, emplacement of threat emitters, etc.)

ITEM J. Special Requirements

ITEM K. Deploying to MCAS Yuma. If Yes, proposed Pre-deployment Brief DTG: to be conducted with Station Personnel.

2. Sample Request.

FM: MAG ELEVEN  
TO: H&HS MCAS YUMA AZ//RNGSKED/RMD/ATC/FLM//  
INFO: (Operating Chain of Command/Coordinating Units)  
UNCLAS //N03710//  
SUBJ: OPAREA REQUEST  
MSGID/GENADMIN/MCAS YUMA AZ//  
REF/A/DOC/FACSFACSDINST 3120.1C/-//  
REF/B/DOC/STAO 3710.6H/-//  
AMPN/REF A IS OPAREA MANUAL  
RMKS/

1. IAW REF A THE FOL REQ IS SUB:

- A. VMFA-323
- B. Scorpion Wind
- C. Exclusive
- D. R-2507 North Alpha
- E. 120900T-120945T OCT 95, CAS
- F. 1. 3/FA 18, 1/AV-8
- 2. MK-82 SE/5

ENCLOSURE (1)



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- 3. Deadman CAS
- 4. N/A
- 5. 6,000 feet MSL

G. As applicable

H. 1A4

I. N/A

J. N/A

K. Negative

Note 1: Requests for multiple exercise/areas should be submitted in the same message as shown below:

- d. As listed below
- e. As listed below
- f. As listed below
- g. As listed below

<u>Date</u>	<u>Time</u>	<u>Range/Target</u>	<u>Altitude</u>	<u>MSN</u>	<u>Ordnance</u>	<u>Aircraft</u>
950505	1200-1300	2507N/Deadman	A	CAS	4xMK-82	2xAV-8
950505	1400-1600	2507S/Blue Mtn	A,B	CAS FAC(A)	4xMK-82	2xF-18 1xUH



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BARRY M. GOLDWATER AERIAL GUNNERY RANGE (R-2301 WEST)

COMMON NAME. BMG Gunnery Range (R-2301W)

LOCATION/BOUNDARIES

Beginning at the intersection of the United States-Mexican Border and 113-30-30W thence along the United States-Mexican Border to 32-23-45N/114-28-30W to 32-30-00N/114-28-30W to 32-30-00N/114-31-00W to 32-35-00N/114-31-00W to 32-35-00N/114-28-30W to 32-39-40N/114-28-30W to 32-40-45N/114-18-29W thence along Interstate 8 to 32-44-15N/113-41-05W and then to the point of origin excluding that airspace below 3,000 feet MSL, North of a line beginning at 32-40-45N/114-18-29W to 32-37-40N/114-12-40W to 32-37-40N/114-09-00W to 32-42-30N/113-45-00W to 32-44-15N/113-41-05W.

DESCRIPTION. Land surface and airspace, excluding the Cactus West and Moving Sand target complex airspace, and when active, Cactus West Moving Sands High (see Enclosure 3 or 4 for airspace description).

TYPE EXERCISE/ORDNANCE. Chaff and flares authorized only.

FLOOR. 200 feet AGL. Surface only upon specific request and requirement. 1500 feet AGL over Cabeza Prieta National Wildlife Refuge. Caution! Border Patrol utilizes 200 feet AGL and below.

CEILING. FL800.

USAGE LIMITATIONS. CONTINUOUS VFR.

RESOURCE MANAGER. Luke AFB (Real Estate) MCAS Yuma (Manpower and Equipment).

SCHEDULING AUTHORITY. FACSFAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN 951-2214/2215.

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into the restricted area and prior to exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area.

a. Checking into

- (1) Callsign, number, and type of aircraft.
- (2) Squadron.

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(3) Restricted area scheduled.

(4) Tactical frequency used while in the area.

(5) Inform Yuma Range Control if requesting IFR clearance upon completion.

b. Exiting

(1) Callsign, number and type.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN 951-2214/2215.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.

2. Speedletter (MSG/Fax) 30 days minimum.

3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS

1. Moving Sands and Cactus West located in the extreme western edge of R-2301 West from the surface to 15,000 feet MSL.

2. Moving Sands and Cactus West High overlying Moving Sands/Cactus West from 16,000 feet MSL to FL200.

3. West Coast Aircrew Combat Training System Range (WCTACTS) located immediately east of the Gila Mountains from 200 feet AGL (NDWT) or 5,000 feet MSL (ACM) to FL800.

4. Aux-II located on the western boundary of R-2301 West from surface to 1,200 feet AGL. Aux-II maintains a 2 NM radius when activated. Latitude/Longitude: 32-32-33N/114-30-32W.

5. Aux-IV located due west of R-2301 East: 114-41-50N/37-31-06W.

ENCLOSURE (2)

6. MCAS Yuma rifle range located 2NM due west of Aux-II.
7. R-2301 East located east of R-2301 West is controlled by Luke AFB (DSN 853-7053).

REMARKS/SPECIAL INSTRUCTIONS

1. General

a. The "No Fire" buffer zone between R-2301 West and R-2301 East will be rigidly observed.

b. R-2301 West airspace is divided into "high" and "low" areas. The low area will be 200 feet AGL (surface upon request) up to but not including 5,000 feet MSL. The high area will be 5,000 feet MSL to FL800.

c. If the "200 feet AGL to the surface" option is requested by the user, the Border Patrol dispatcher will be notified by MCAS Yuma (ATC), and Border Patrol aircraft operating in R-2301W will land within the confines of R-2301W or will vacate the restricted area altogether during the block time requested by the military user.

d. The procedures above are not meant to curtail or limit low altitude tactics training but simply to reduce the possibility of a midair collision as much as possible. The Border Patrol aircraft normally fly from 50 feet to 100 feet AGL. Users are encouraged; however, to exercise the "200 feet AGL to the deck" option only when actual utilization is required and intended. Border Patrol aircraft are white and green, or dark green normally OH-6C.

e. Exiting

(1) If Moving Sands and Cactus West are HOT, exit at 15,500 feet MSL or higher to overfly this airspace.

(2) If Moving Sands and Cactus West High are HOT, exit at 20,500 feet MSL or higher to overfly this airspace. Expect IFR handling into Class A airspace and a frequency switch to Yuma Approach after departing the restricted area.

f. The Cabeza Prieta National Wildlife Refuge is that portion of R-2301 south of a line extending from 32-25N/113-57W, east to the buffer zone and east of a line extending from 32-25N/113-57W, south to the Mexican Border (approximately 32-14N/113-57W). All aircraft shall maintain a minimum altitude of 1,500 feet AGL over the CPNWR.

2. Common check points used by MAWTS-1. Note: Not all check points fall within R-2301 West Range boundaries.

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<u>Name</u>	<u>Grid Coordinates</u>	<u>Lat/Long</u>
Falcon	QG 510 168	32-39-36N/114-19-24W
Patriot	QF 680 912	32-25-30N/114-09-00W
Packers	QF 764 792	32-19-00N/114-04-00W
Sea Hawks	QG 688 072	32-34-24N/114-08-12W
Viking	QG 812 008	32-30-48N/114-00-12W
Raider	TL 250 884	32-23-48N/113-55-30W
Bronco	TL 610 720	32-15-54N/113-32-48W
Chief	TM 460 160	32-39-18N/113-42-24W
Bengal	TM 554 044	32-33-06N/113-36-24W
Bills	TM 756 186	32-40-48N/113-23-54W
Cardinal	TL 890 756	32-18-00N/113-14-39W
Ram	TM 948 144	32-39-06N/113-11-18W
Redskins	UM 054 206	32-42-36N/113-04-48W
Saint	UM 288 262	32-45-48N/112-49-54W
Cowboys	UM 368 118	32-38-00N/112-44-30W
Giants	UL 506 926	32-27-48N/112-35-36W
Steelers	UL 174 896	32-25-54N/112-56-48W
Hammers	TM 440 210	32-41-54N/113-43-54W
Rope	QG 806 152	32-38-26N/114-00-32W
Maverick	TL 207 934	32-26-40N/113-58-15W
Bird	TL 500 895	32-24-59N/113-39-30W
Finger	UL 080 635	32-11-36N/113-02-12W
Toe	TL 810 985	32-30-14N/113-19-52W
Pistol	TL 660 950	32-28-10N/113-28-23W
Bismark	TL 725 820	32-21-13N/113-25-03W

3. Forward Area Refueling Point. FARP locations will be scheduled with Yuma Range Management. Using units must also schedule range times with Yuma Range Scheduling and have exclusive use of restricted airspace.

a. Location

- (1) Bakers Peak - QG795145
- (2) TACTS Airfield - QF673995

4. Lost Communications

a. Procedures to be used in the event of two-way radio failure are prescribed in FAR 91.127. Should two-way radio failure occur when operating in R-2301W and it is not practical to recover using VFR procedures, the aircraft shall proceed as follows:

- (1) Aircraft shall squawk 7600.

(2) R-2301W HIGH. Aircraft shall maintain 21,000 feet MSL, proceed direct to NYL TACAN thence via the NYL R-340 to RADOS IAF and execute the HIGH TACAN RUNWAY 21 RIGHT APPROACH or HIGH TACAN RUNWAY 3

ENCLOSURE (2)

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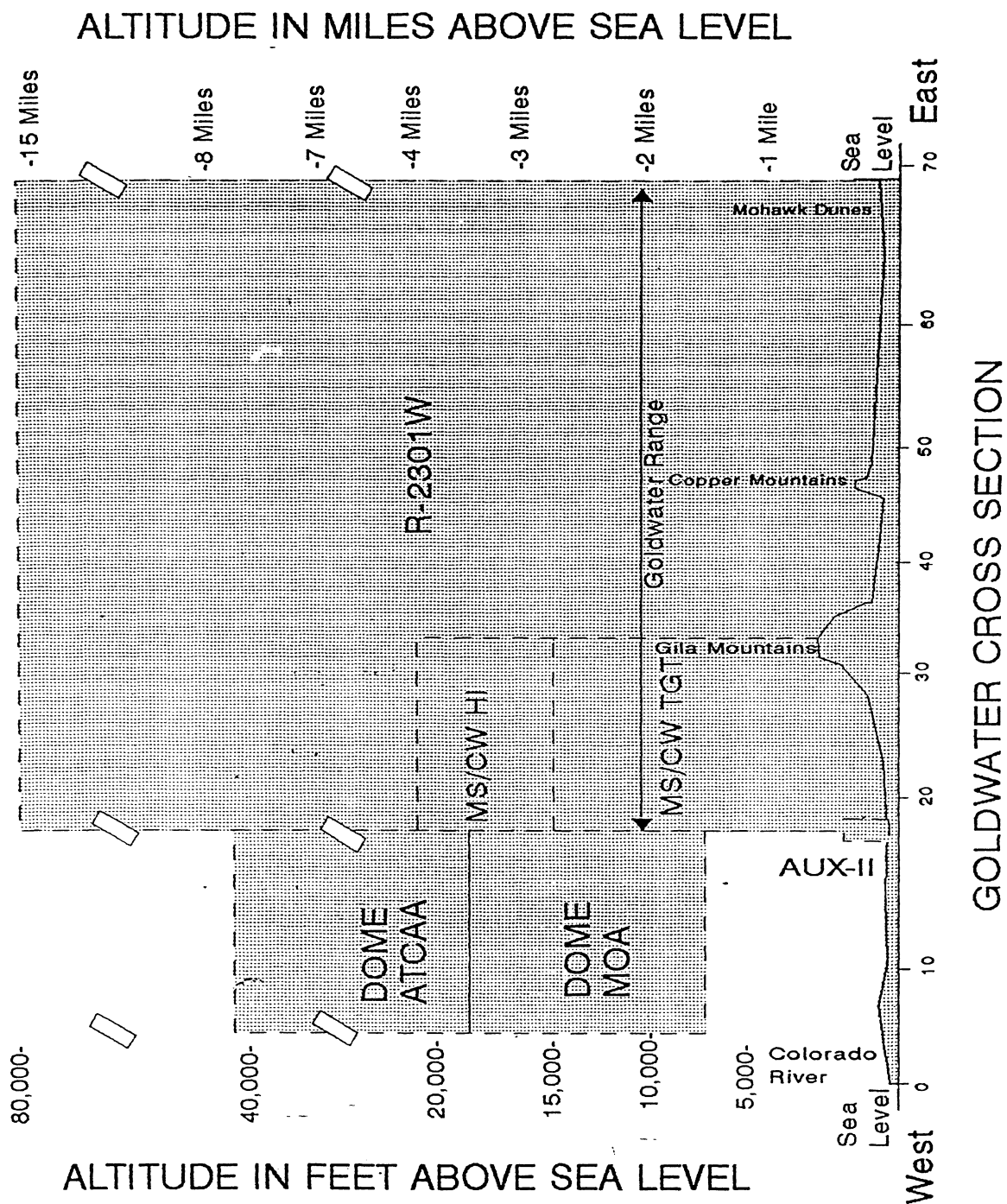
LEFT APPROACH.

(3) R-2301W LOW. Aircraft shall maintain 5,000 feet MSL, exit the R-2301W LOW to the north to intercept the BZA Vortac R-075 to BZA, thence direct the NYL TACAN R-340 IAF 15 mile fix (alternate IAF), or to IAF GROBE DME fix and execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH or HIGH/LOW TACAN RUNWAY 3 LEFT.

(4) If the duty runway is known, aircraft shall execute the approach to the duty runway. If the duty runway is unknown, execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH.

ENCLOSURE (2)

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URBAN TARGET COMPLEX (YODAVILLE) (R-2301 WEST)

Urban Target Complex (R-2301 West).

1. Common Name(s). Urban Target Complex (Yodaville), formerly known as Moving Sands. As of December 2000, the range formerly known as Moving Sands will hereby be known as Yodaville or the Urban Target Complex at Yodaville.

2. Location. Within R-2301 West, west of the Gila Mountains 32° 18' 53"N / 114° 13' 15"W along the U.S. Mexican border to 32° 23' 45"N / 114° 28' 30"W to 32° 30' 00"N / 114° 28' 30"W to 32° 30' 00"N / 114° 31' 00"W to 32° 35' 00"N / 114° 31' 00"W to 32° 39' 40"N / 114° 28' 30"W to 32° 40' 30"N / 114° 18' 30"W to origin. The Urban Target Complex is centered at 32° 26' 16"N / 114° 19' 54"W.

3. Airspace. The Urban Target Complex lies beneath the Yodaville airspace which is further divided into Low and High airspace. The Low airspace extends from the surface up to 15,000 feet MSL. Yodaville High airspace overlies the target complex from 16,000 feet to FL200. This airspace is intended to facilitate higher altitude bombing patterns. Normal scheduling of Yodaville airspace does not include Yodaville High. If mission requirements require this airspace, it must be specifically scheduled when submitting range requests. When both Low and High airspace are scheduled, the continuous airspace from surface to FL200 is available for use.

	Yodaville Low	Yodaville High
Floor	Surface	16,000 feet MSL
Ceiling	15,000 feet MSL	FL200

Table C-1

4. Overlapping and Adjacent Areas.

(a). Cactus West is located on the extreme western edge of the R-2301 West from the surface to 15,000 feet MSL. Cactus West High airspace overlies the Cactus West Target from 16,000 feet MSL to FL200. **Note: When scheduling the Urban Target Complex, Cactus West airspace MUST BE SCHEDULED concurrently.**

(b). West Coast Tactical Aircrew Combat Training System Range (WCTACTS) is located immediately East of the Gila Mountains from 200 feet (for No Drop Weapons Training or NDWT) or 5,000 feet MSL (ACM)

ENCLOSURE (3)



to FL800. WCTACTS also extends West of the Gila Mountains to the western edge of the R-2301W overlying the Urban Target Complex airspace from FL210 to FL800.

(c). Dome MOA/ATCAA is located immediately West of the R-2301W. The MOA extends from 6,000 feet MSL to FL180, and the ATCAA overlies the MOA extending to FL800.

(d). AUX-II is located on the western boundary of the R-2301W from surface to 1,200 feet AGL. AUX-II airspace is contained within a 2 NM radius when activated. AUX-II is located at 32° 32' 33"N / 114° 30' 32"W.

#### 5. Type Exercise and Ordnance.

(a). See paragraph 13(h) for detailed information on weapons restrictions. In general, the target complex is limited to conventional, light, inert ordnance; **employed during close air support (CAS) training only**. Specifically, limited to aircraft delivered LGTR, Mk-76, BDU-48, 2.75" Inert Rockets, 7.62 and .50 caliber ball, 20mm and 25mm TP rounds (or equivalent inert munitions). Illumination (Mk-257, Mk-278, LUU-2 and LUU-19) and self protection flares, and chaff are authorized. Red and White Phosphorus is not authorized. No loft, toss, or deliveries with a positive flight path angle are allowed while an OP is manned. Additionally, no deliveries with a release of 18,000 feet AGL or higher are authorized when an OP is manned.

(b). The UTC is limited to CAS missions supported by a qualified FAC or FAC(A). FAC/FAC(A) syllabus sorties are authorized in accordance with applicable T&R manual requirements.

(c). Requests for direct fire tracers, M-203 smoke/illum, mortar smoke/illum or other marking devices may be submitted for approval on a case-by-case basis. **Note: Normally, range operations DO NOT INCLUDE THE USE of organic infantry weapons.**

#### 6. Description.

(a). The Urban Target Complex consists of 178 buildings made from shipping containers of various types. The target features buildings of various sizes, vehicle targets (both civilian and military), and simulated personnel.

(b). The targets within the complex are located within a 400m by 350m rectangle. There are five FAC OPs, one on each semi-cardinal direction, and one (OP 1) on the 140° run-in line. Four OPs are M113 Armored Personnel Carriers located approximately 300m from the closest building on each respective semi-cardinal heading. OP 1 is a

ENCLOSURE (3)

cargo container with overhead cover approximately 1000m Northwest of the target area. **This OP is the only authorized OP when conducting LGTR operations.**

(c). The majority of the buildings are scorable via the WISS as well as the No Drop Bomb Scoring (NDBS) system. Aircrew are strongly encouraged to utilize TACTS pods and the NDBS.

(d). There are two strafing berms which are acoustically scored. The berms are located 1,000 feet West of the South tower.

(e). Target elevation is 568 feet.

7. Usage Limitations.

(a). VFR only. The target complex airspace may be scheduled 24 hours a day, 7 days a week. Normal operating hours for TACTS coverage are Monday-Friday 1500-2300(Z). Normal operating hours for WISS scoring are Monday-Friday 1300-0500(Z). TACTS and WISS support are available at other times by request. Contact TACTS at DSN 951-2905, and WISS at DSN 951-2025.

(b). **When scheduling the Urban Target Complex, Cactus West airspace MUST BE SCHEDULED concurrently.**

8. Communications.

(a). Aircraft must contact "Yuma Range Control" for clearance into the R-2301W prior to entering the airspace on 274.0 or 124.15. The following information will be passed when checking into/exiting the area:

(1). Checking into

- a) Callsign, number, and type of aircraft.
- b) Area scheduled.
- c) Tactical frequency to be used in area (if different than established target complex frequency).
- d) Inform range control if requesting IFR clearance upon completion.
- e) Number and type of ordnance onboard.

(2). Exiting

- a) Callsign, number, and type of aircraft.
- b) Number and type of ordnance expended.

(b). The scheduled airspace user has a 15-minute window, from start of scheduled time to contact Yuma Range Control. After 15 minutes, the block time will be canceled.

ENCLOSURE (3)

(c). If the scheduled user will not be able to use the scheduled block time, contact Yuma Range Scheduling as soon as possible, DSN 951-2214/2215 during working hours. After normal working hours contact Yuma Range Control at DSN 951-2231.

(d). If the user is conducting CAS with a manned FAC OP, all aircraft will check in with the FAC on the Urban Target Complex frequency, 290.1 before any ordnance may be released.

(e). Aircraft must have one operable radio (transmit and receive) to enter or drop ordnance on the range. Aircraft with inoperable radios will be orbited clear of the target or escorted home as required by the individual squadron's standard operating procedures (SOP).

(f). **NO ORDNANCE MAY BE RELEASED ONTO THE RANGE WITH A MANNED OP** without a clearance by the FAC/FAC(A).

9. Resource Manager. MCAS Yuma.

10. Scheduling Authority. FACS FAC San Diego.

11. Scheduling Activity. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

12. Scheduling Document Lead Time.

(a). Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the intended use.

(b). Range schedules will be disseminated on the 15<sup>th</sup> of the month prior to the scheduled month (ex. June schedules are disseminated on 15 May). After dissemination, available range space can be requested on a first come - first served basis. Special or short notice requests will be approved on a case by case basis.

13. Remarks and Special Instructions.

(a). Manned FAC OPs will be conspicuously marked during the day with an orange visible aircraft panel and during the night with a flashing clear or infrared strobe light, or other clearly visible marking device(s).

(b). A NO FLY/FIRE zone will include plus or minus 15° either side of the FAC OP-to-target line. Aircraft will be allowed to conduct attacks within designated run-in headings for each OP. FACs and FAC(A)s will ensure that any assigned attack cones also fall within the mandatory run-in headings. These run-in headings (magnetic) are:

ENCLOSURE (3)

Northeast OP	232° clockwise to 307° 202° counter-clockwise to 127°
Southeast OP	352° clockwise to 067° 322° counter-clockwise to 247°
Southwest OP	067° clockwise to 142° 037° counter-clockwise to 322°
Northwest OP	157° clockwise to 232° 127° counter-clockwise to 052°

Rotary wing aircraft only will be allowed inside the NO FLY/FIRE zone, and ONLY when in-between the FAC OP and target complex as depicted on pages 10-13 of this appendix.

(c). The **entire flight** will conduct a cold pass to verify the manned FAC OP location prior to commencing ordnance deliveries. This cold pass shall be flown within the prescribed run-in headings for the appropriate manned OP. Without a manned OP, the flight must conduct a cold pass (range sweep) to visually inspect the target set. **Note: This cold pass does not constitute a valid range clearance (see notes k and m in this section).**

(d). All ordnance deliveries (during CAS missions) shall be preceded with a "cleared hot" call from the FAC or FAC(A). If the FAC(A) has been delegated ordnance release authority, then the FAC will monitor the radio calls and maintain final and absolute release authority.

(e). Final attack headings (when delivering free fall ordnance and rockets) approaching perpendicular to the FAC-to-target line are inherently safer than attacks made close to the FAC-to-target line. Conversely, strafing attacks are safer when made parallel to the FAC-to-target line. Pilots should attempt to conduct attacks with consideration to these guidelines, but must always ensure their attack heading falls within the prescribed mandatory run-in headings from paragraph 13.(b) above.

(f). The FAC, FAC(A), and flight lead must understand that attacking targets closest to the OP has the highest risk and that the risk gradually decreases as OP to target range increases. Four No Fire Areas (NFAs) are located within the target complex (see figure C-6) to provide an additional safety buffer. These NFA's are labeled NW, NE, SW, and SE to correspond with the nearest FAC OP. An NFA will be active when it's corresponding OP is manned. For example, if the Southwest OP is manned, NFA SW would be active; NFA's NE, NW, and SE would be inactive.

ENCLOSURE (3)

(g). To the maximum extent possible, FACs will provide clearance to aircraft and observe impacts from inside the OP (M113). **When using LGTR's, the FAC and aircrew will verify that the FAC is located in OP 1** which is 1000m Northwest of the target complex.

(h). The following ordnance is authorized for delivery against any targets within the target complex: LGTR, MK-76, BDU-48, 2.75" Inert Rockets (or equivalent inert munitions). Strafing (20mm/25mm/.50) shall be restricted to the military personnel targets and single story ocean cargo containers located north of the main East-West running road. No strafing is authorized against the larger CBU container structures located south of the main East-West running road. 7.62 is authorized anywhere inside the target compound.

(i). All side firing guns (.50/7.62) and AH-1W turreted gun shall only be fired while pointed away from the manned FAC OP. Turreted and side firing guns will only be fired from straight and level flight. Firing during turns or target pull-off is prohibited. Rotary wing aircraft firing within the NO FLY/FIRE zone (see figures C-2 thru C-5) will ensure that no targets between the manned OP and aircraft will be engaged, and that firing from side guns will be restricted to guns on the side of the aircraft away from the OP. AH-1s firing **turreted** gun (off axis) will conduct a weapons test firing at the strafing target East of the target complex prior to engaging targets at the Urban Target Complex.

(j). A maximum of ten personnel will occupy the FAC OP. Only essential personnel will man the FAC OPs. Each person shall wear a helmet and flak jacket. Only one FAC OP will be manned during any attack. A FAC may move to another OP between attacks and such movement will be communicated to the flight lead. There shall be no attacks while the FAC is relocating. **A new clearing pass must be conducted by the entire flight to confirm the new FAC location.**

\* (k). The senior FAC/FAC(A) MUST RECEIVE A RANGE CLEARANCE BRIEF from the Range Management Department. For FAC parties operating from the 300m or 1000m Ops, this must be a FACE TO FACE brief. FAC(A) operations conducted by aircraft not located at MCAS Yuma shall conduct a telephonic brief with the Range Management Department at DSN 951-2405/2403/3401 (commercial 520 341-).

(l). One vehicle may be parked at the active OP to facilitate FAC movement and emergency requirements. No attacks may be controlled from any vehicle or location other than the designated OP's. The vehicle must be marked in a similar manner as the manned OP as discussed in paragraph 13.(a).

ENCLOSURE (3)

\* (m). The UTC must be swept for interlopers by ground personnel or rotary wing aircraft prior to commencing CAS operations. Range Control must be contacted by telephone (x2231) or by radio on 290.1 stating that the range has been cleared. This report must include the scheduling unit and scheduled range time. No CAS operations are authorized until this clearance report has been received by Range Control. Rotary wing aircraft will be allowed into the complex to conduct their own range clearance.

#### 14. LASER Operations.

(a). A new LASER Target Area (LTA) has been created for LASER operations at the Urban Target Complex. The LTA has been designated LTA MS-4, and the boundaries are as follows: 5075 9195 to 5075 9230 to 5115 9195 to 5115 9230 to origin. Airborne and ground lasing is authorized at LTA MS-4.

(b). There are five ground firing points at LTA MS-4. They are co-located with the five OPs. The authorized LASER designation limits are listed in the table below. Note that the LASERS listed in Table C-3 are provided for reference only. Any approved LASER with a maximum buffer angle less than 10 mrad is authorized for use.

Firing Points	Location	Lateral Firing Limits (clockwise true)	Maximum Buffer Zone Angle
Northwest OP	5065792488	107° - 137°	10 mrad
Northwest OP	5065792488	107° - 167°	5 mrad
Southwest OP	5046891879	015° - 075°	5 mrad
Southwest OP	5046891879	041° - 075°	10 mrad
Southeast OP	5096791649	284° - 330°	5 mrad
Northeast OP	5119992395	195° - 254°	5 mrad
OP 1	5045093200	142° - 154°	5 mrad

Table C-2

Buffer Angle	Ground LASER Systems
≤5 mrad	AN/GAQ-T1 (LDSS) <sub>TRIPOD</sub> , ANTVQ-2 (GVLLD) <sub>TRIPOD</sub> , AN/PAQ-3 (MULE) <sub>TRIPOD</sub> , SOFLAM <sub>(10 SEC EXP)</sub> , AN/PEQ-2 (ITPAIL) <sub>AIM MODE-LOW PW, AIM OR ILLUM LOW</sub> , AN/AAS-44 LAMPS
≤10 mrad	CLD <sub>HANDHELD</sub> , LLTD <sub>HANDHELD</sub> , AN/GVS-5 <sub>HANDHELD</sub> , 19db RED, 29db YELLOW, AN/PAQ-1 (LTD) <sub>HANDHELD</sub> , AN/PAQ-3 (MULE) <sub>HANDHELD</sub> , AN/PEQ-2 (ITPAIL) <sub>DUAL-LOW/HIGH MODE</sub> , AN/PVS-X (MLRF) <sub>BRUNSWICK VERSION</sub> , AN/PVS-6 (MELIOS), IZLID 2, AIM-1/DLR, LPL-30
>10 mrad, Not Authorized	AN/PAQ-3 (MULE) <sub>HANDHELD-NIGHT</sub> , AN/PVS-X (MLRF) <sub>RCA VERSION</sub>

Table C-3

ENCLOSURE (3)



(c). Airborne lasing information is included in the diagrams at the end of this appendix. When aircraft are using airborne LASERS, all personnel within the LASER Hazard Zone (LHZ) will wear LASER safe eye protection. All aerial LASERS on USMC, USN, USAF, and USA aircraft that are currently approved by the LASER Safety Review Board are authorized for use. All aerial flight profiles are based on a 5 mrad laser buffer zone angle.

(d). Different aerial LASER tactics can change the LASER Hazard Zone for any particular target. While on the Urban Target Complex, aircrew will ensure that they do not begin lasing until the LASER is aimed at a target within the LTA. Standoff and offset lasing can be accomplished safely as long as the target is within the LTA. Since the LTA is rather small, Continuously Computing Impact Position (CCIP) LASER operations will not be permitted.

**LTA MS-4 Aerial Lasing Profiles**  
**Minimum Safe Lasing Altitude**  
(feet MSL)

All Headings are Degrees True

Slant Range To Target (NM)	320-037	037-140	140-180	180-320	Slant Range to Target (NM)	320-037	037-140	140-180	180-320
12.0	4,770	6,867	5,038	4,912	4.5	1,246	1,721	1,475	1,266
11.5	4,442	6,399	4,719	4,572	4.0	1,118	1,520	1,331	1,133
11.0	4,127	5,950	4,412	4,246	3.5	1,003	1,337	1,197	1,015
10.5	3,825	5,518	4,117	3,934	3.0	901	1,171	1,076	910
10.0	3,537	5,104	3,833	3,630	2.5	812	1,023	966	819
9.5	3,262	4,708	3,561	3,351	2.0	737	893	867	741
9.0	3,001	4,330	3,300	3,081	1.5	676	781	781	678
8.5	2,753	3,969	3,051	2,824	1.0	627	686	706	628
8.0	2,518	3,626	2,813	2,581	0.5	592	609	642	592
7.5	2,296	3,301	2,587	2,352	0.0	570	550	590	570
7.0	2,088	2,993	2,373	2,136	-0.5	590	609	672	590
6.5	1,893	2,703	2,170	1,934	-1.0	619	680	766	619
6.0	1,711	2,431	1,979	1,747	-1.5	659	763	872	657
5.5	1,543	2,177	1,800	1,573	-2.0	707	857	989	705
5.0	1,388	1,940	1,632	1,412	-2.5	765	963	1,118	762

Table C-4

ENCLOSURE (3)

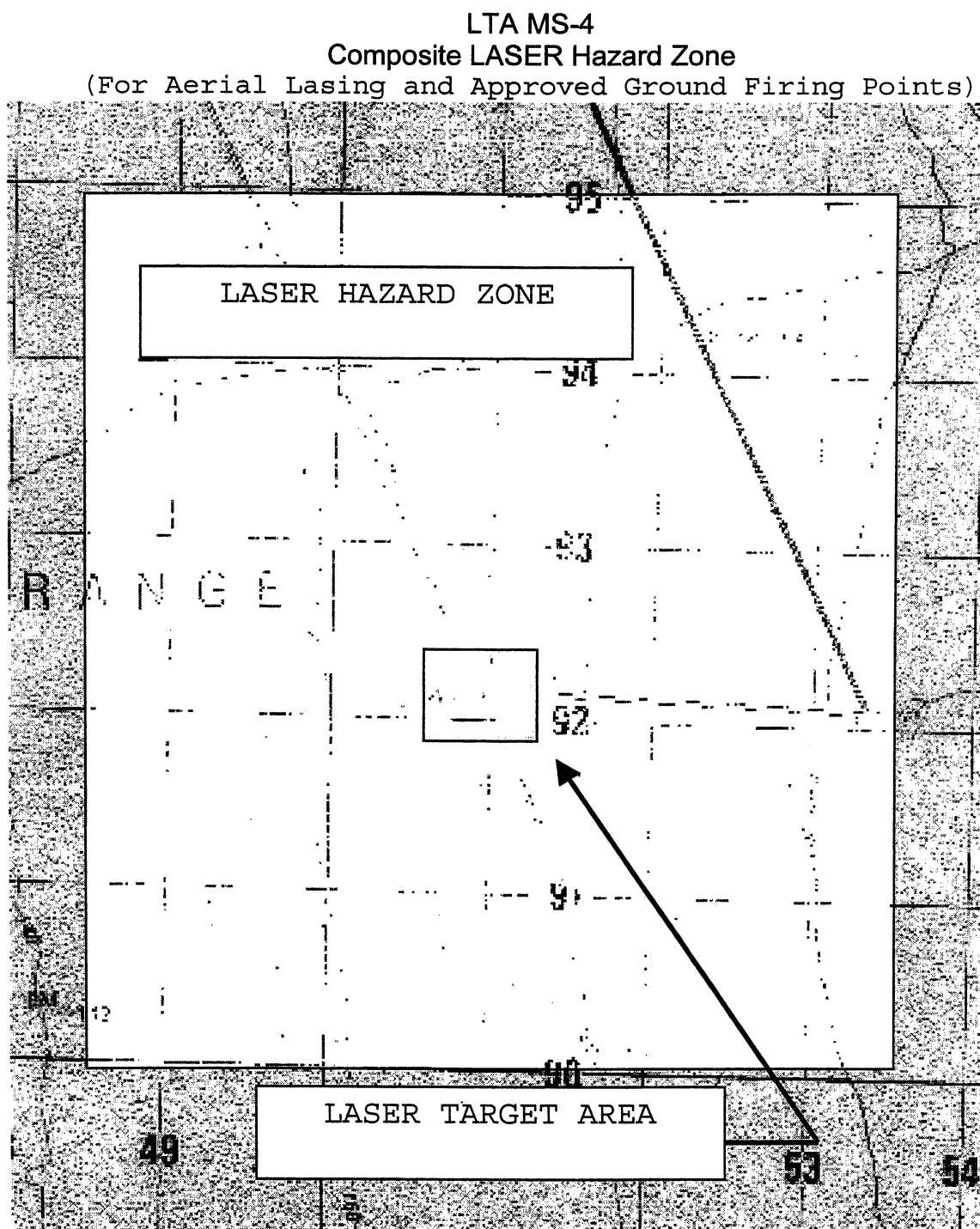


Figure C-1

# Urban Target Complex Northeast OP

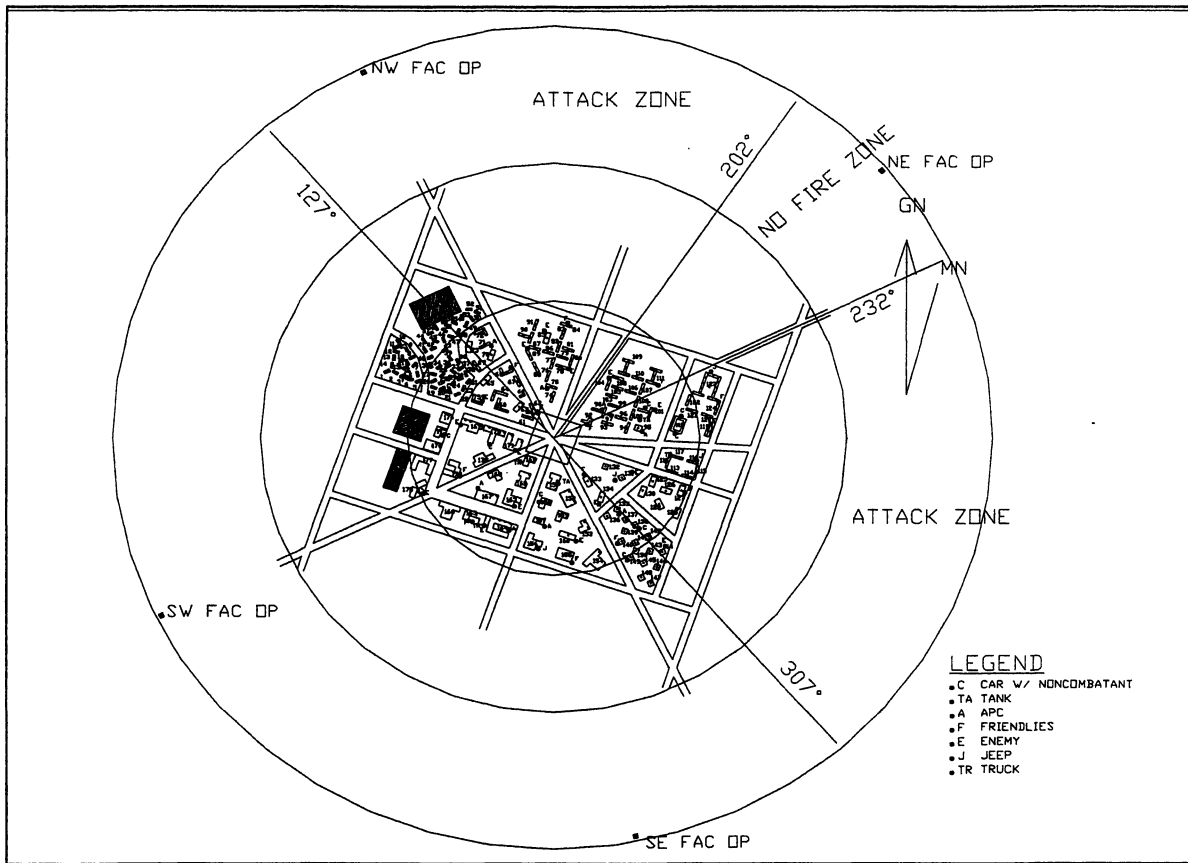


Figure C-2

ENCLOSURE (3)

Urban Target Complex  
Southwest OP

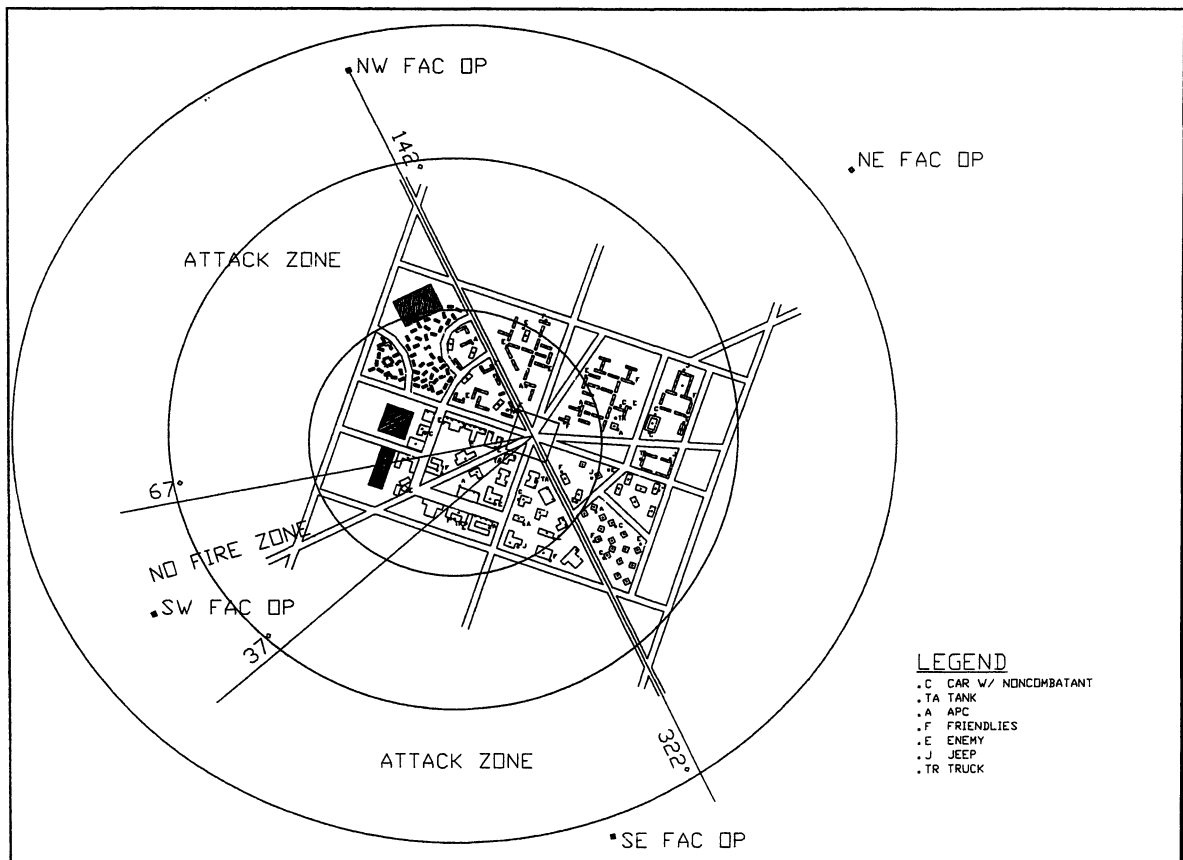


Figure C-3

Urban Target Complex  
Northwest OP

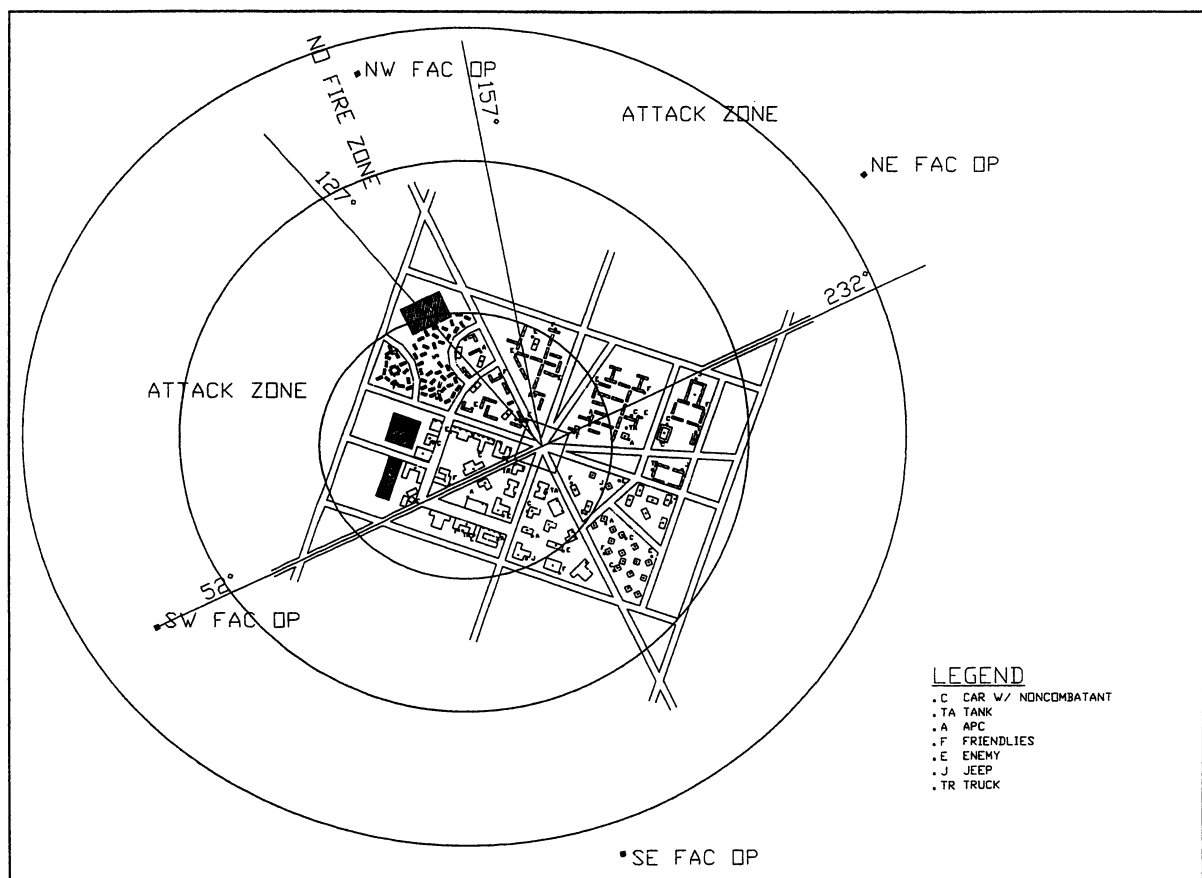


Figure C-4

ENCLOSURE (3)

Urban Target Complex  
Southeast OP

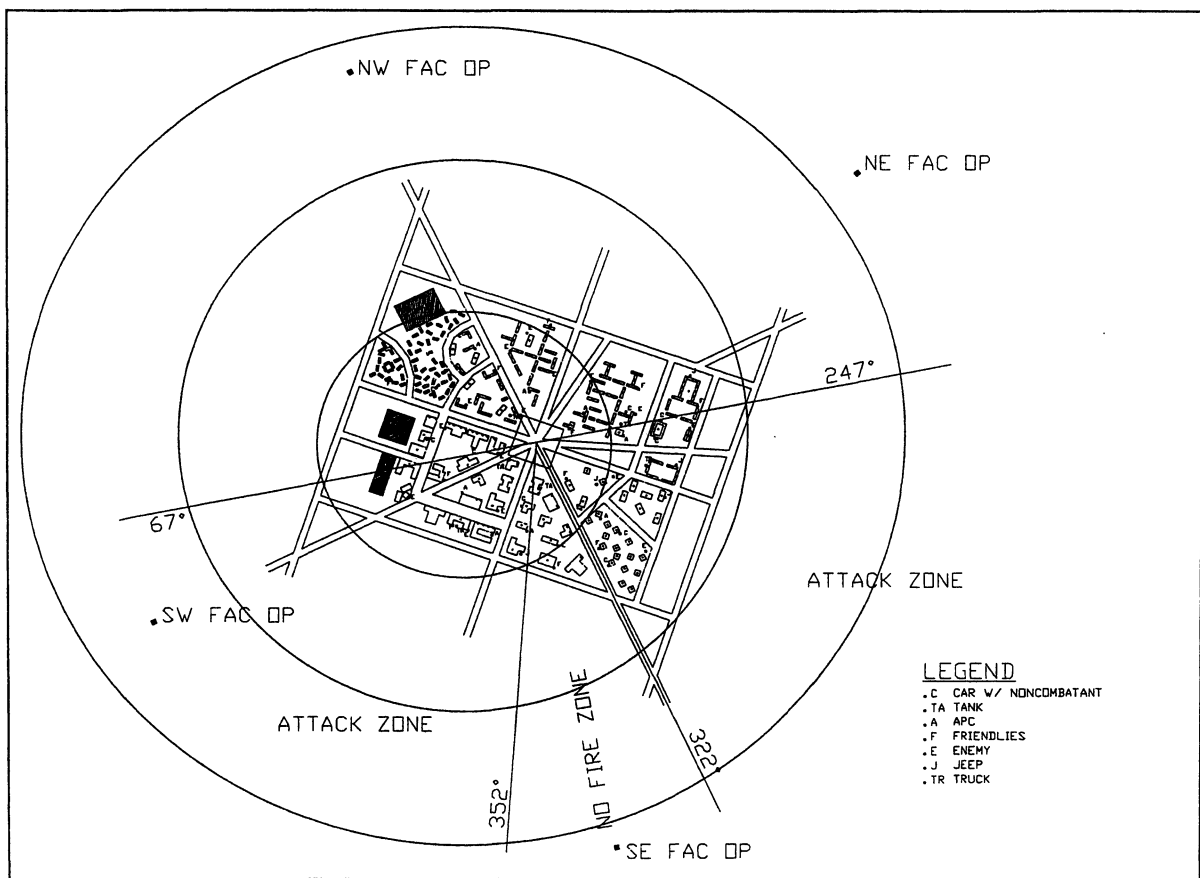


Figure C-5

Urban Target Complex  
NFA's

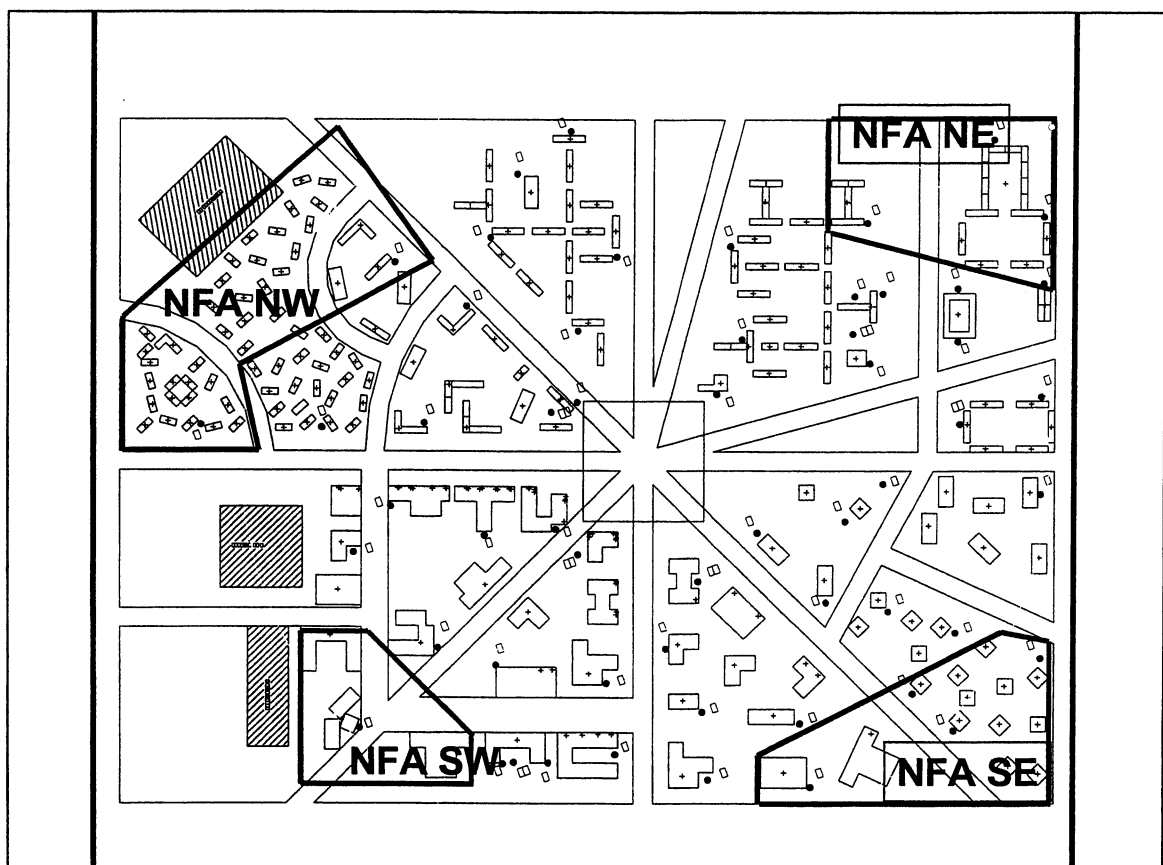


Figure C-6





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CACTUS WEST (R-2301 West)

COMMON NAME. Cactus West (R-2301 West)

LOCATION/BOUNDARIES

Within R-2301 West, west of the Gila Mountains 32-18-53N/114-13-15W along the U.S. Mexican Border to 32-23-45N/114-28-30W to 32-30-00N/114-28-30W to 32-30-00N/114-31-00W to 32-35-00N/114-31-00W to 32-39-40N/114-28-30W to 32-40-30N/114-18-30W to origin. The western edge of R-2301 is approximately 1 NM west of the Cactus West run-in line. The Cactus West target is centered at 32-27-34N/114-24-05W or OP442941.

DESCRIPTION

1. The range consists of an Air-to-Ground rocket and bomb target and two strafing targets.
2. The target is for inert conventional rocket and bomb deliveries and consists of a 50 feet diameter bullseye and concentric circles of 75, 150, and 300 feet radii, with a 1,500 feet bladed radius around the target.
3. Strafing targets consist of two berms which are acoustically scored. The strafing berms are located 1,000 feet west of the south tower.
4. Target elevation is 400 feet.
5. Moving Sands/Cactus West High is that airspace that overlies the Moving Sands/Cactus West target airspace from 16,000 feet MSL to FL200. This airspace is established for the purpose of conducting high altitude bombing. If mission requirements dictate the use of this airspace, units must stipulate this in their range requests to Yuma Range Scheduling.

TYPE EXERCISE/ORDNANCE. Inert only. Conventional ordnance up to 1,000 pounds. No special weapons, cluster bombs (CBU's) or ordnance requiring immediate recovery are authorized. Laser operations are not authorized. Strafing the raked bull is not authorized.

	<u>Cactus West</u>	<u>Cactus West High</u>
<u>FLOOR.</u>	SFC	16,000 feet MSL
<u>CEILING.</u>	15,000 feet MSL	FL200

USAGE LIMITATIONS. VFR only. Operating hours Monday-Friday 0600-2200(T). Available at other times by separate request, two hours minimum advance notice; 24 hours for scoring.

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RESOURCE MANAGER. Luke AFB (Real Estate) MCAS Yuma (Manpower and Equipment).

SCHEDULING AUTHORITY. FACSFAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into restricted area and prior to exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area:

a. Checking into

(1) Callsign, number and type of aircraft.

(2) Squadron.

(3) Restricted area scheduled.

(4) Tactical frequency used while in area.

(5) Notify Yuma Range Control if requesting IFR clearance to exit area.

b. Exiting

(1) Callsign, number and type of aircraft.

(2) Number and type ordnance expended.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN: 951-2214/2215.

4. Contact Cactus West after check-in with Yuma Range Control on 358.6 MHz (WISS); Secondary 262.2.

5. Aircraft must have at least one operable receiver to enter or drop ordnance on the range. In the event of radio failure within the flight, another aircraft shall give the mandatory calls for the no

ENCLOSURE (4)

transmitter aircraft. Aircraft with inoperable receivers will be orbited clear of the target or escorted home as per the individual squadron's SOP.

6. If no radio contact is made with Cactus West after three attempts, the flight may enter the range after their scheduled range time has begun and may commence their ordnance delivery after the flight lead has visually confirmed the target is clear.

#### SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested ranges/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

#### OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS

1. Moving Sands located in the extreme western edge of R-2301 West from the surface to 15,000 feet MSL.
2. Moving Sands and Cactus West High overlies Moving Sands/Cactus West from 16,000 feet MSL to FL200.
3. West Coast Aircrew Combat Training System Range (WCTACTS) located immediately East of the Gila Mountains from 200 feet AGL (NDWT) or 5,000 feet MSL (ACM) to FL800.
4. Aux-II is located on the western boundary of R-2301 West from surface to 1,200 feet AGL. Aux-II maintains a 2 NM radius when activated. Latitude/Longitude: 32-32-33N/114-30-32W.
5. MCAS Yuma rifle range is located 2 NM due west of Aux-II.
6. R-2301 East located east of R-2301 West is controlled by Luke AFB (DSN 853-7053).

#### REMARKS/SPECIAL INSTRUCTIONS

1. Lighting. The target is electrically lighted at the 3, 6, 9, and the 12 o'clock positions as depicted in the Cactus West diagram. (See page 11)

2. Flight Patterns (See page 7 and 8)

a. The following provisions are applicable to all weapons delivery flights:

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(1) Run-in heading 140 degrees magnetic.

(2) Right-hand pattern.

(3) Initially call crossing entry/exiting point for the range at 7,500 feet MSL, giving number of aircraft and type of delivery. On each subsequent run, call if type delivery changes and ensure that the aircraft remains within the range boundary.

(4) Call in "HOT" or "COLD" on each run.

(5) Call "OFF SAFE" (and "NO DROP" if appropriate) after EACH run, maintaining right-hand pattern.

(6) 3,500 feet AGL is the minimum altitude on the outbound leg of the pattern.

(7) Weapons deliveries will typically be single drops. However, for time, fuel, safety, or tactical considerations multiple releases with stick lengths less than 200 feet will be approved by WISS on a case by case basis.

b. Aids for special weapon delivery.

(1) A 59,200 feet, bladed, run-in line exists with distance markers every 6,000 feet from the target center through 54,000 feet.

(2) The Cactus West run-in line may be confused with old run-in lines which angle SSW to the Rakish Litter, Panel Stager Complex (See page 9).

(3) There are off-set markers located at 500 feet to the left of the run-in line starting at 54,000 feet, and at 6,000 feet intervals prior to the bullseye.

(4) A radar reflector is located 2,700 feet southeast of the bullseye.

(5) High dive deliveries above FL200 are prohibited on Cactus West without the approval of Yuma Range Control.

c. The following provisions are applicable to all offset attacks.

(1) All offsets will be made to the west for Cactus West.

(2) Final attack heading will be between 110 and 140 degrees.

(3) Aircraft will avoid overflying the southeast scoring tower.

ENCLOSURE (4)

d. Strafe

(1) Fixed Wing Aircraft

(a) Utilize panels 1 and 2 (southwest of the south tower) with run-in heading of 140 degrees magnetic, right-hand pattern. Panels are numbered left to right.

(b) Guns will be on "SAFE" when off target; guns may be "ARMED" only when on run-in heading of 140 degrees magnetic. Aircraft may make an initial jink after firing is complete to avoid any frag pattern. All aircraft SHALL avoid overflying the south scoring tower.

(2) Helicopters

(a) Use Point Tango as the entry/departure route for Moving Sands/Cactus West. Minimum altitude when crossing the restricted area boundary is 500 feet AGL. Avoid overflying built up areas.

(b) Utilize panels 1 and 2. Do not strafe bullseye.

(c) Fly a left or right-hand race track pattern heading 050 or 230 degrees as directed (side firing aircraft).

(d) Commence fire with guns pointed 140 degrees magnetic.

(e) No more than four aircraft are authorized in the pattern at one time.

e. Tow Banner Drop

(1) The tow banner drop area is east of AUX II. Call Cactus West prior to I-8 at an altitude of not less than 3,500 feet AGL. Do not enter the restricted area until clearance is given by Cactus West. After receiving clearance, continue on a final heading of 195 degrees magnetic. Release the tow banner at an altitude of 300 feet to 500 feet AGL. Depart to the west with a right-hand turn-out. Inform Cactus West of departure. Banner and tow cable recovery is the responsibility of the using unit. Access shall be coordinated with Range Management, DSN: 951-3651 or (520) 341-3651.

(2) Hung Tow

(a) A cable cutter (red and white striped) is located approximately 1,500 feet southeast of AUX II. Run-in heading for hung tow banner removal is 195 degrees magnetic.

(b) After an unsuccessful normal tow drop, inform Cactus West of hung tow and intentions to use the cutter. Cactus West

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will then clear the flight to use the cable cutter. After the tow has been cut, depart to the west using a righthand turn-out and inform Cactus West of departure.

(c) The bomb and strafing pattern will be lifted during jettisoning.

f. Live Ordnance Jettison Area

(1) A live ordnance and drop tank jettison area is located west of Cactus West on the TACAN Channel 84, 130 degrees radial, 13 DME. Run-in heading is 180 degrees magnetic.

(2) Ordnance will be dropped "UNARMED". Contact Cactus West prior to drop.

(3) Except in case of emergency, live ordnance will not be jettisoned without two-way radio contact with Cactus West.

(4) All drops of live ordnance will be immediately reported to the Range Management Office at DSN 951-3651.

3. Lost Communications

a. Procedures to be used in the event of two-way radio failure are prescribed in FAR 91.127. Should two-way radio failure occur when operating in CACTUS WEST and it is not practical to recover using VFR procedures, the aircraft shall proceed as follows:

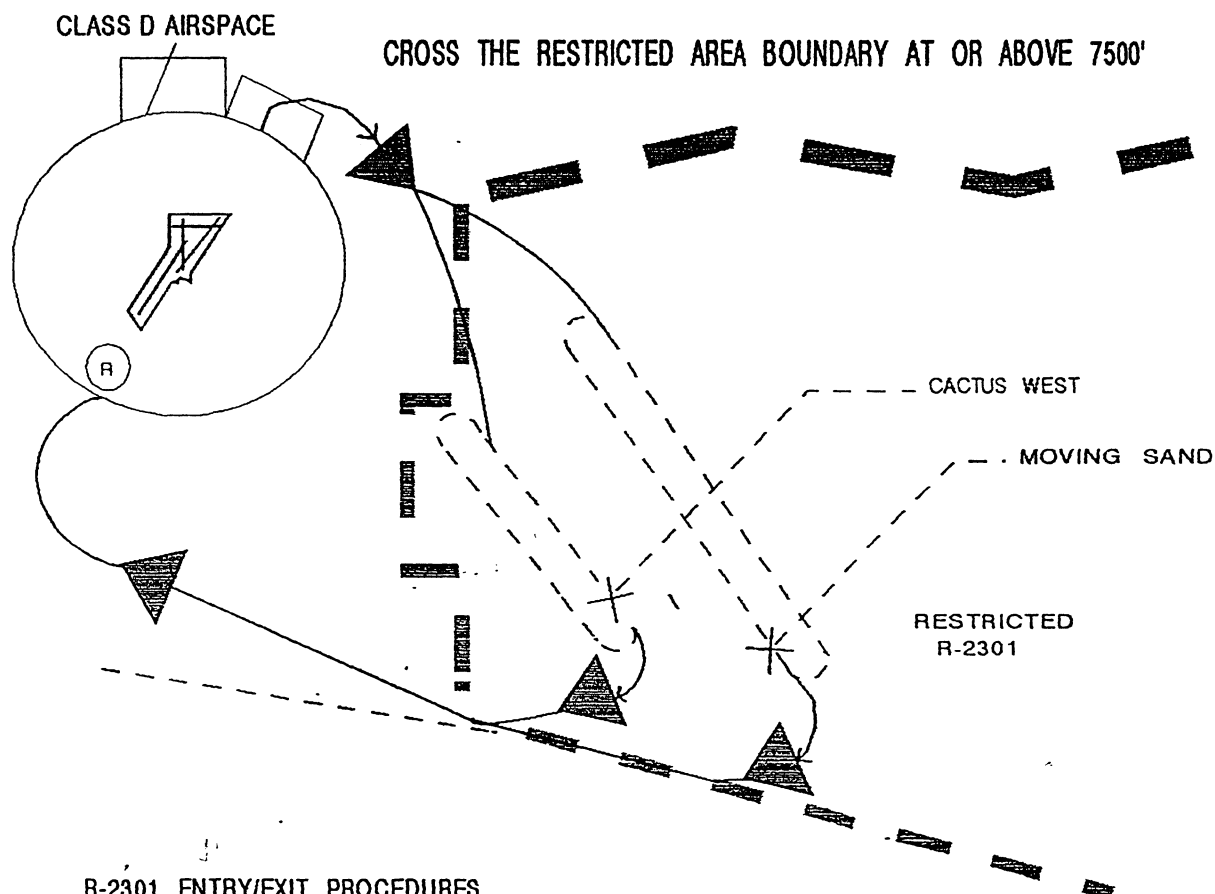
(1) Aircraft shall squawk 7600.

(2) Aircraft shall maintain 6,000 feet MSL, proceed directly to IAF (NYL R-340/15 DME FIX) and execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH, or proceed to IAF GROBE DME FIX and execute the HIGH/LOW TACAN RUNWAY 3 LEFT APPROACH.

(3) If the duty runway is known, aircraft shall execute the approach to the duty runway. If the duty runway is unknown, execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH.

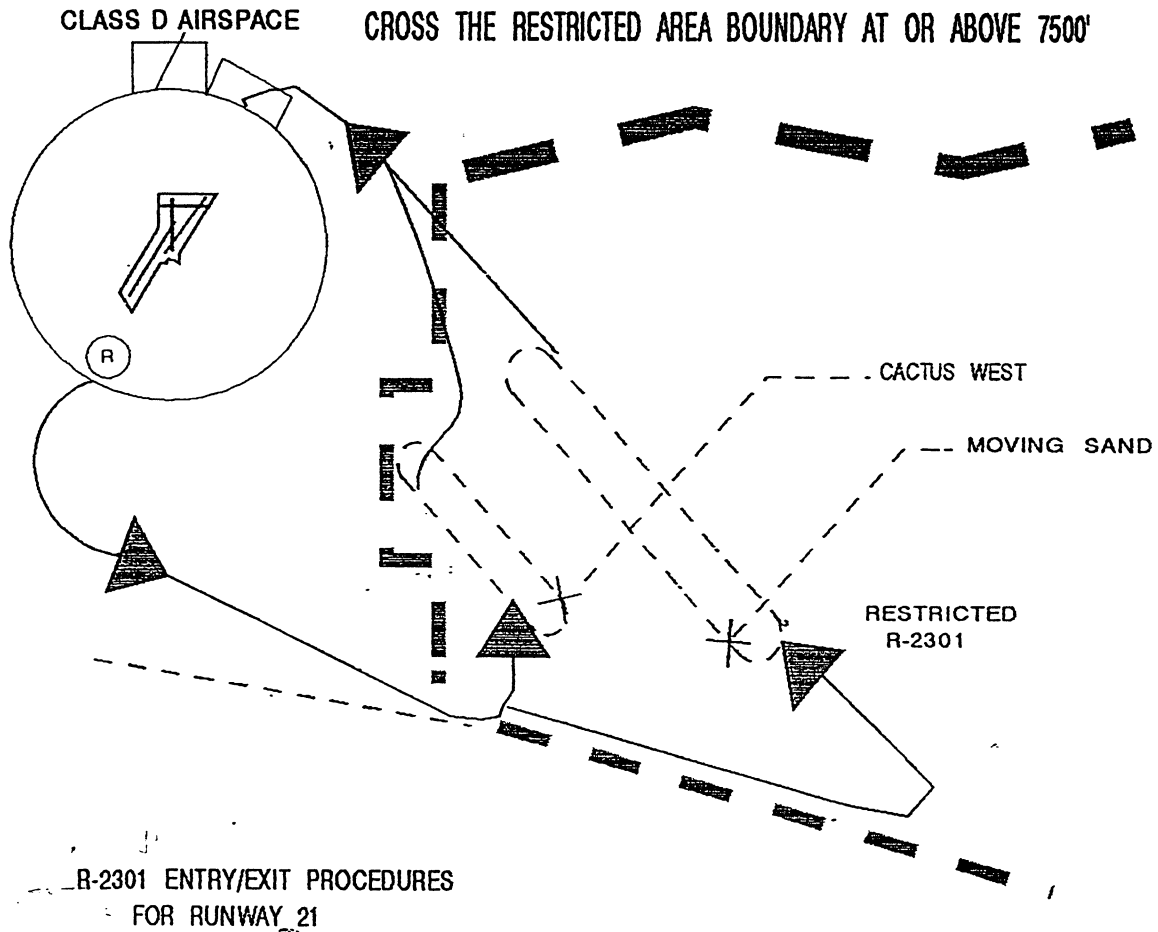
4. NOISE ABATEMENT. Fixed wing aircraft will remain at or above 3,500 feet MSL while over populated areas, such as the Foothills residential area located south of Interstate 8 and west of Fortuna Wash.

# CACTUS WEST (R-2301 WEST)



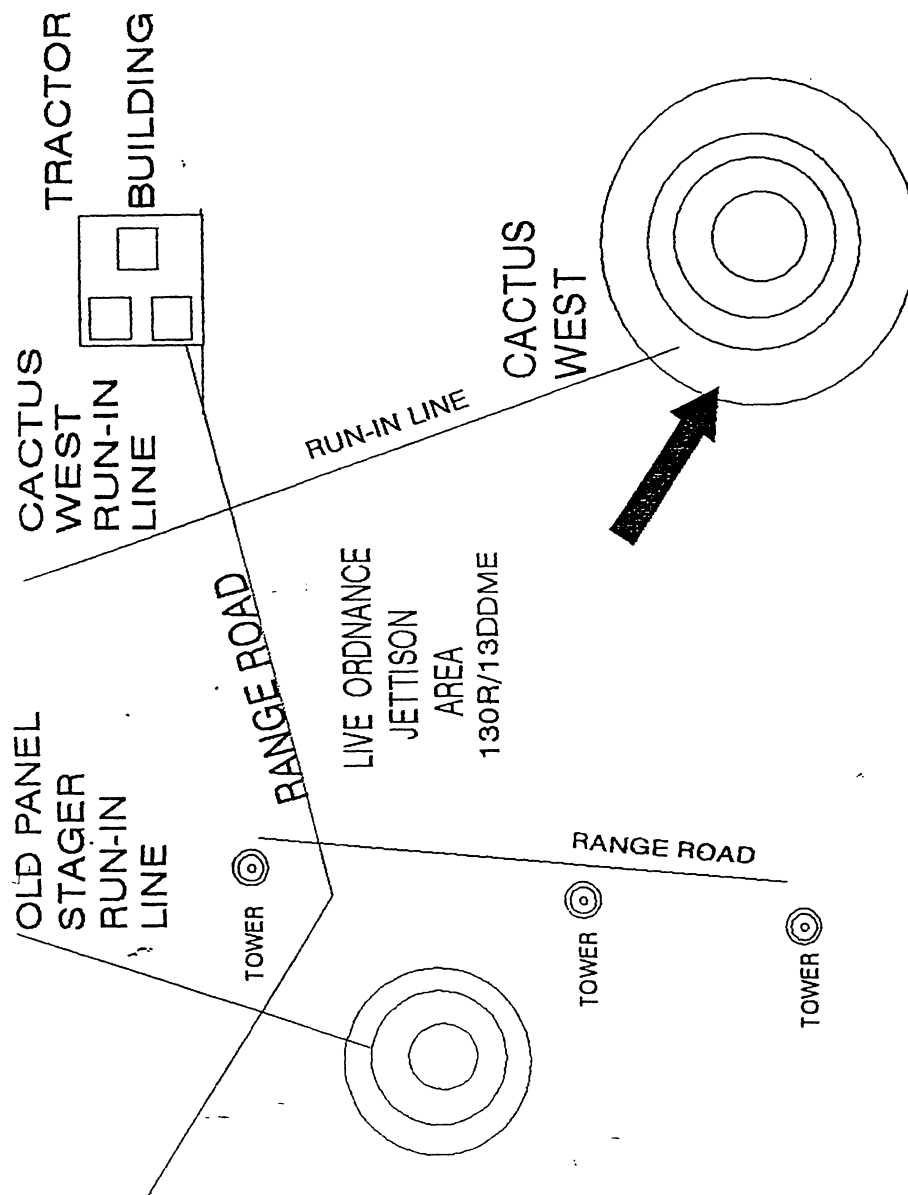
R-2301 ENTRY/EXIT PROCEDURES  
FOR RUNWAY 03

# CACTUS WEST (R-2301 WEST)



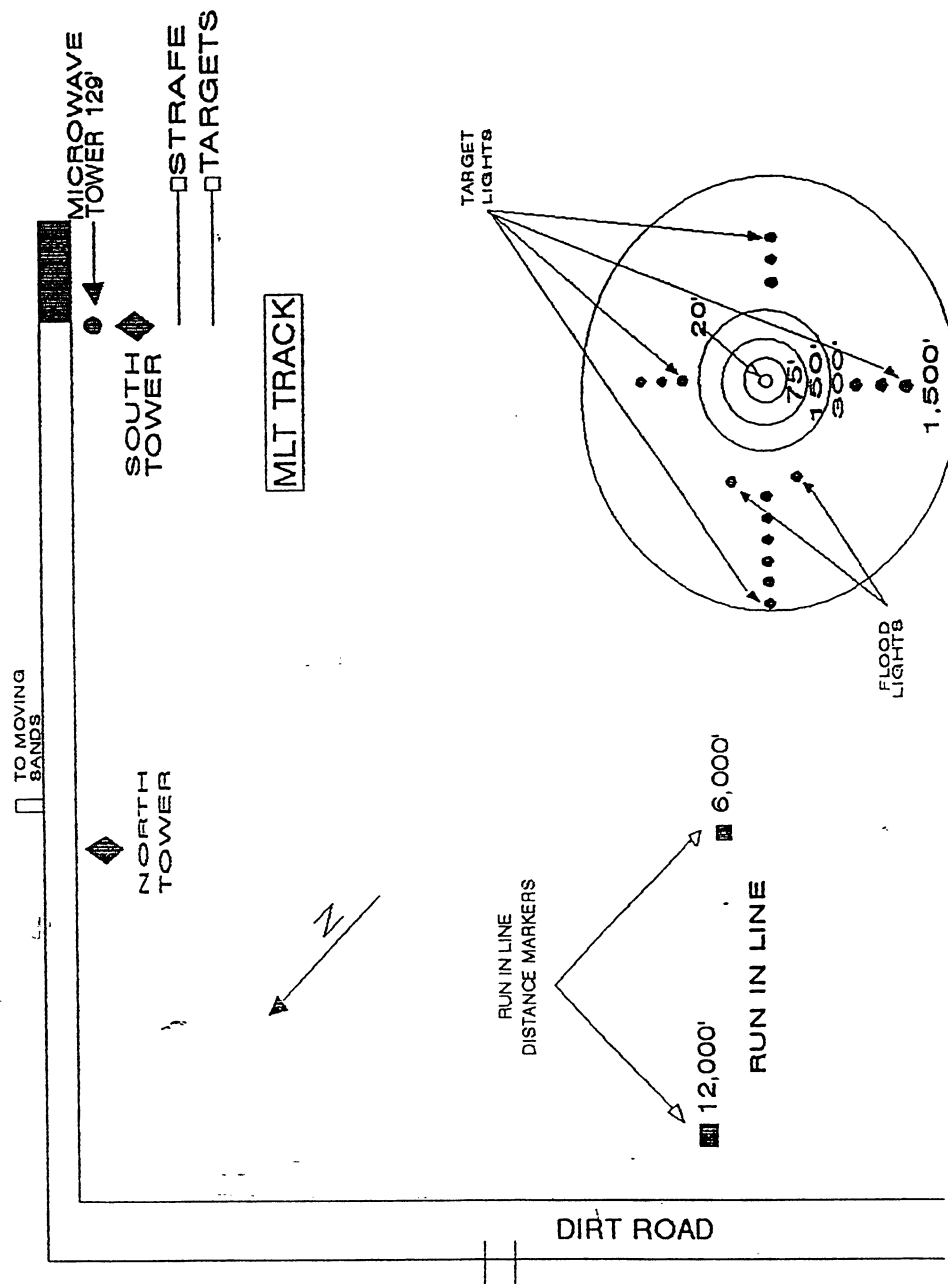


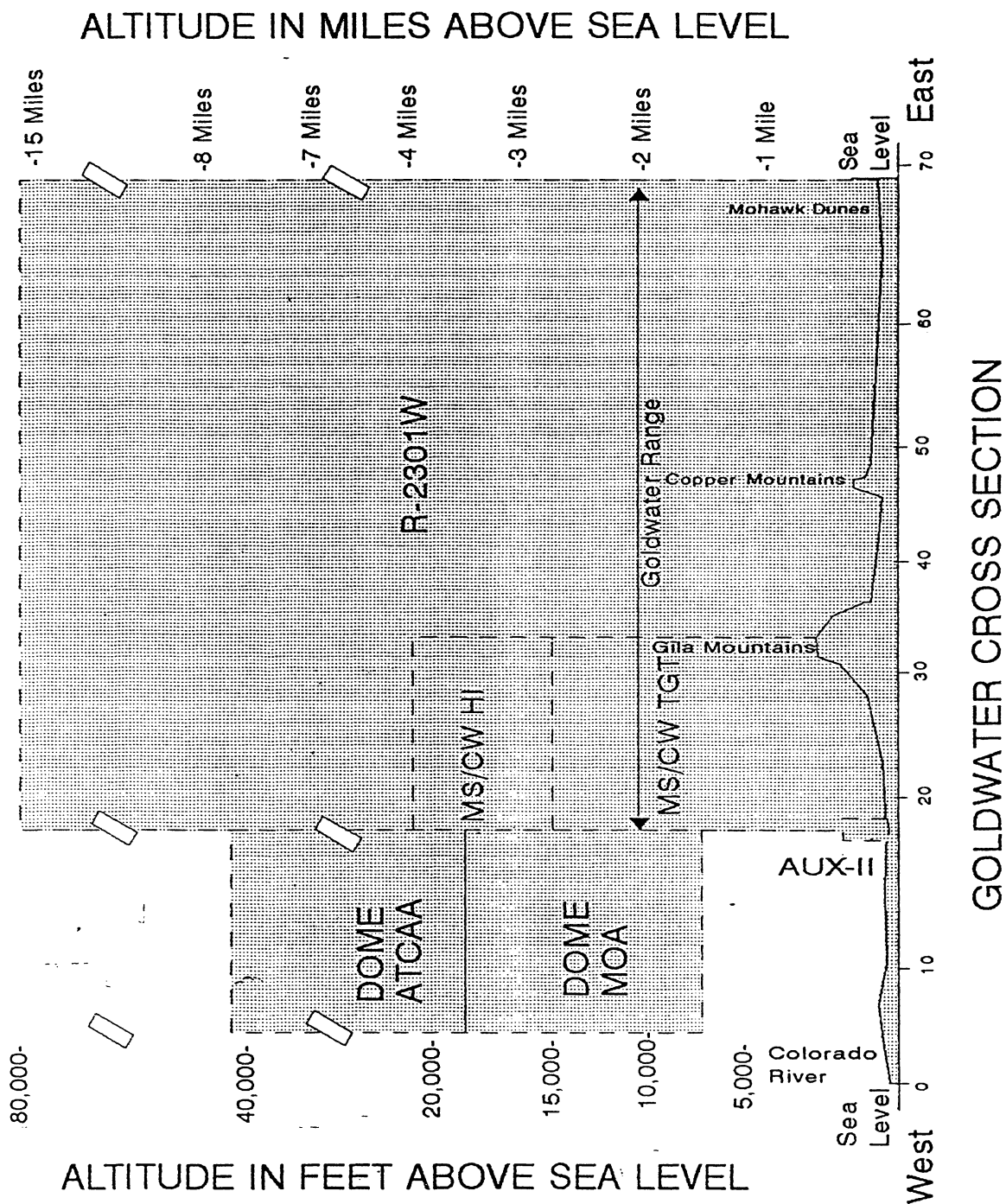
# CACTUS WEST (R-2301 WEST)



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## CACTUS WEST (R-2301 WEST)







YUMA TACTS (R-2301 WEST)

COMMON NAME. Yuma Tactical Aircrew Combat Training System Range (Yuma TACTS) (R-2301 West).

LOCATION/BOUNDARIES. Yuma, Arizona. Beginning at the intersection of the U. S. Mexican border and 113-34-15W thence along the U.S. Mexican border to 32-18-53N/114-13-15W to 32-30-00N/114-18-30W to 32-40-30N/114-18-30W thence along Interstate Highway 8 to 32-43-30N/113-43-45W to 32-07-00N/113-34-15W; EXCLUDING the airspace below 16,000 feet MSL (21,000 feet MSL if Moving Sands/Cactus West High are active) west of a line extending from 32-40-30N/114-18-30W to 32-30-00N/114-18-30W to 32-18-53N/114-13-15W, which contains Moving Sand and Cactus West Bombing Ranges; and ALSO EXCLUDING that airspace below 3,000 feet MSL, North of a line beginning at 32-40-45N/ 114-18-29W to 32-37-40N/114-12-40W to 32-37-40N/114-09-00W to 32-42-30N/113-45-00W to 32-48-15N/113-41-05W.

DESCRIPTION. Airspace within R-2301 West.

TYPE EXERCISE/ORDNANCE. Aerial Combat Maneuvering (ACM). Air-to-Ground No Drop Weapons Training (NDWT). Flares and chaff as required by mission.

FLOOR. 200 feet AGL (NDWT) or 5,000 feet MSL (ACM). Surface upon request and requirement. 1,500 feet AGL over Cabeza Prieta National Wildlife Refuge. Caution! Border Patrol utilizes 200 feet AGL and below throughout R-2301.

CEILING. FL800.

USAGE LIMITATIONS. VER only. No ordnance authorized. See FACS FACS DINST 3120.1\_ for additional limitations.

RESOURCE MANAGER. Luke AFB (Real Estate). MCAS Yuma (Manpower) COMFITWINGPAC NAS Miramar (Equipment).

SCHEDULING AUTHORITY. FACS FAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS YUMA (all times other than 0800-1600(T) Monday-Friday airspace only). COMFITWINGPAC, NAS Miramar (0800-1600(T) Monday - Friday) excluding holidays (See Scheduling Document and LeadTime).

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into restricted area and exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area.

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a. Checking into

- (1) Callsign, number, and type of aircraft.
- (2) Squadron.
- (3) Restricted area scheduled.
- (4) Tactical frequency used while in area.
- (5) Notify Yuma Range Control if requesting IFR clearance to exit area.

b. Exiting

- (1) Callsign.
- (2) Number and type ordnance expended.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. Yuma TACTS, Monday-Friday, DSN 951-2831, other times Yuma Range Scheduling, DSN 951-2214.

4. After clearance into the range, all TACTS flights must contact one of the three DDS's, War Wagon (Miramar), Sand Box (El Centro), or Hassle Base (Yuma) on primary UHF 279.2 or secondary 314.75 Mh. They will clear the flight onto the range or to the holding fix. No aircraft will enter the restricted area unless specifically cleared by Yuma Range Control.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

ENCLOSURE (5)

1995

4. Scheduling Procedures for the Yuma TACTS with Pods

a. Request and obtain authorization from COMFITWINGPAC by message or calling:

COMFITWINGPAC  
YUMA TACTS COORDINATOR  
NAS MIRAMAR, CA 92145  
DSN: 577-6116

b. Method - message (one week minimum/one year maximum) or telephone (24 hours).

c. Request must contain

- (1) Squadron number and type aircraft (including adversary).
- (2) Number of pods per period including adversary).
- (3) Staging airfield.
- (4) Date(s) and period number(s) requested on range.

d. There are 12 consecutive 40 minute periods that commence at 0800 Tango time (Yuma Local). Periods are numbered 1 through 12 for ease of scheduling.

OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS

1. Moving Sands and Cactus West located in the extreme western edge of R-2301 West from the surface to 15,000 feet MSL.
2. Moving Sands and Cactus West High overlying Moving Sands/Cactus West from 16,000 feet MSL to FL200.
3. West Coast Aircrew Combat Training System Range (WCTACTS) located immediately east of the Gila Mountains from 200 feet AGL (NDWT) or 5,000 feet AGL (ACM) to FL800.
4. Aux-II located on the western boundary of R-2301 West from surface to 1,200 feet AGL. Aux-II maintains a 2 NM radius when activated.
5. MCAS Yuma rifle range is located 2 NM due west of Aux-II.
6. R-2301 East located east of R-2301 West is controlled by Luke AFB (DSN 853-7053).

REMARKS/SPECIAL INSTRUCTIONS

1. General

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a. The buffer zone on the east side of the range will be strictly observed. Aircraft will not penetrate Mexican airspace, nor exceed the north surface boundary of R-2301W. Range Control may terminate any flight that violates range boundaries.

b. Scheduled range times, debrief times, and blocked altitudes must be adhered to in order to efficiently utilize all training assets.

c. All supersonic flight operations in the R-2301(W) shall be conducted in strict accordance with the provisions of OPNAVINST 3710.7 (series). Supersonic flight shall be limited to that portion of the R-2301(W) south of MCAS Yuma's TACAN (Channel 84) 100 degree radial to the Mexican border, between 20-52 NM, surface to FL800. Supersonic "bugouts" will be executed with the nose of the aircraft pointed inside the supersonic area to the south on a heading between 110 to 260 degrees magnetic. (See Page 8). Fighter "bugout" in the vicinity of Raven Butte (Chocolate Drop) will be above 16,000 feet MSL crossing the Gila Mountains avoiding Moving Sands and Cactus West targets.

d. Flights are cautioned to remain clear of Moving Sands/Cactus West Ranges below 16,000 feet or below 21,000 feet when Moving Sands/Cactus West High is in use.

e. The Cabeza Prieta National Wildlife Refuge is that portion of R-2301W, south of a line extending from 32-25N/113-57W, east to the buffer zone and east of a line extending from 32-25N/113-57W, south to the Mexican border (approximately 32-14N/113-57W). All aircraft shall maintain a minimum altitude of 1,500 feet AGL over the Cabeza Prieta National Wildlife Refuge. MAWTS-1 exempt under circumstances outlined in Memorandum of Agreement.

## 2. Operational Procedures for WCTACTS (See page 7)

a. All flights check in with "WAR WAGON", "SAND BOX", or "HASSLE BASE".

### b. WCTACTS Range Boundaries

(1) North - R-2301 surface boundary (approximately 3 NM south of Highway I-8).

(2) South - USA/Mexico border.

(3) East - Buffer zone between R-2301 West & East (Mohawk Mountain Chain).

(4) West - A line running generally NW-SE along the western slope of the Gila Mountain chain from Telegraph Pass to the Mexican border.

ENCLOSURE (5)



c. Entry. Enter R-2301 West over Telegraph Pass (Channel 115, 100 degrees/15 DME; or Channel 84, 085 degrees/14 DME) at assigned altitude or VFR altitude as appropriate.

d. Holding Fix. BARD Channel 115, 135 degrees/15 DME or MCAS Yuma Channel 84, 110 degrees/15 DME hold southeast, inbound to the fix, non-standard pattern, 10 NM legs hold at a VFR altitude.

e. Departure. Depart R-2301 West over Telegraph Pass (same as paragraph c above) at appropriate VFR altitude.

f. Safety. The rules of engagement established by OPNAV, individual squadrons and other authorities in the chain of command must be rigidly observed. Individual aircrews, not Yuma Range Control, are responsible for the ultimate safety of Yuma TACTS training.

### 3. Threat Emitters

a. Mobile AAA Tactical Radar Threat Generator (TRTG) and Modular Threat Emitter (MTE) are available with advance notice. (Include in OPAREA request).

b. The TRTG is a mobile, manned, J-band EW threat emitter which simulates the ZSU 23-4 Gun Dish radar. 2-way UHF-VHF communications on range frequencies and comprehensive VCR tape debrief is provided. The MTE is a fixed, manned, I or J-band threat emitter which simulates the SA6 or SA8 surface to air missile radar.

c. Six TACTS/ACMI Slewable Emitter targets (TASET) are presently being integrated into TACTS. For additional information and availability for scheduling, call Yuma TACTS/EW scheduling, DSN 951-3648 or Commercial (520) 341-3648.

### 4. Lost Communications

a. Procedures to be used in the event of two-way radio failure are prescribed in FAR 91.127. Should two-way radio failure occur when operating in WCTACTS and it is not practical to recover using VFR procedures, the aircraft shall proceed as follows:

(1) Aircraft shall squawk 7600.

(2) R-2301W HIGH. Aircraft shall maintain 21,000 feet MSL, proceed direct to NYL TACAN thence via the NYL R-340 to RADOS IAF and execute the HIGH TACAN RUNWAY 21 RIGHT APPROACH OR HIGH TACAN RUNWAY 3 LEFT APPROACH.

(3) R-2301 LOW. Aircraft shall maintain 5,000 feet MSL, exit R-2301W LOW to the north and intercept the BZA VORTAC R-075 to BZA,

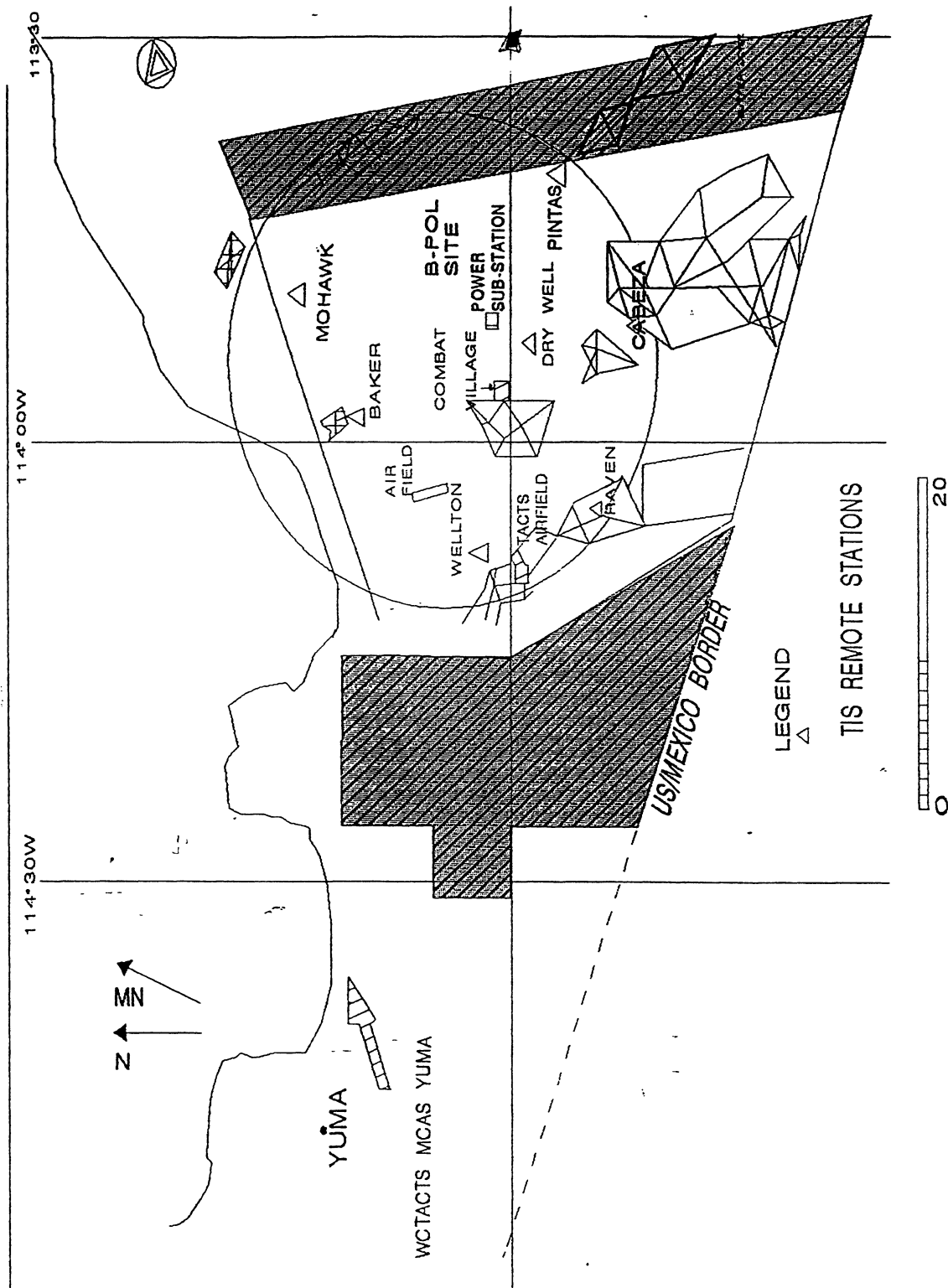
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thence direct the NYL TACAN R-340 15 mile fix (alternate IAF), or to IAF GROBE DME fix and execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH OR HIGH/LOW TACAN RUNWAY 3 LEFT APPROACH.

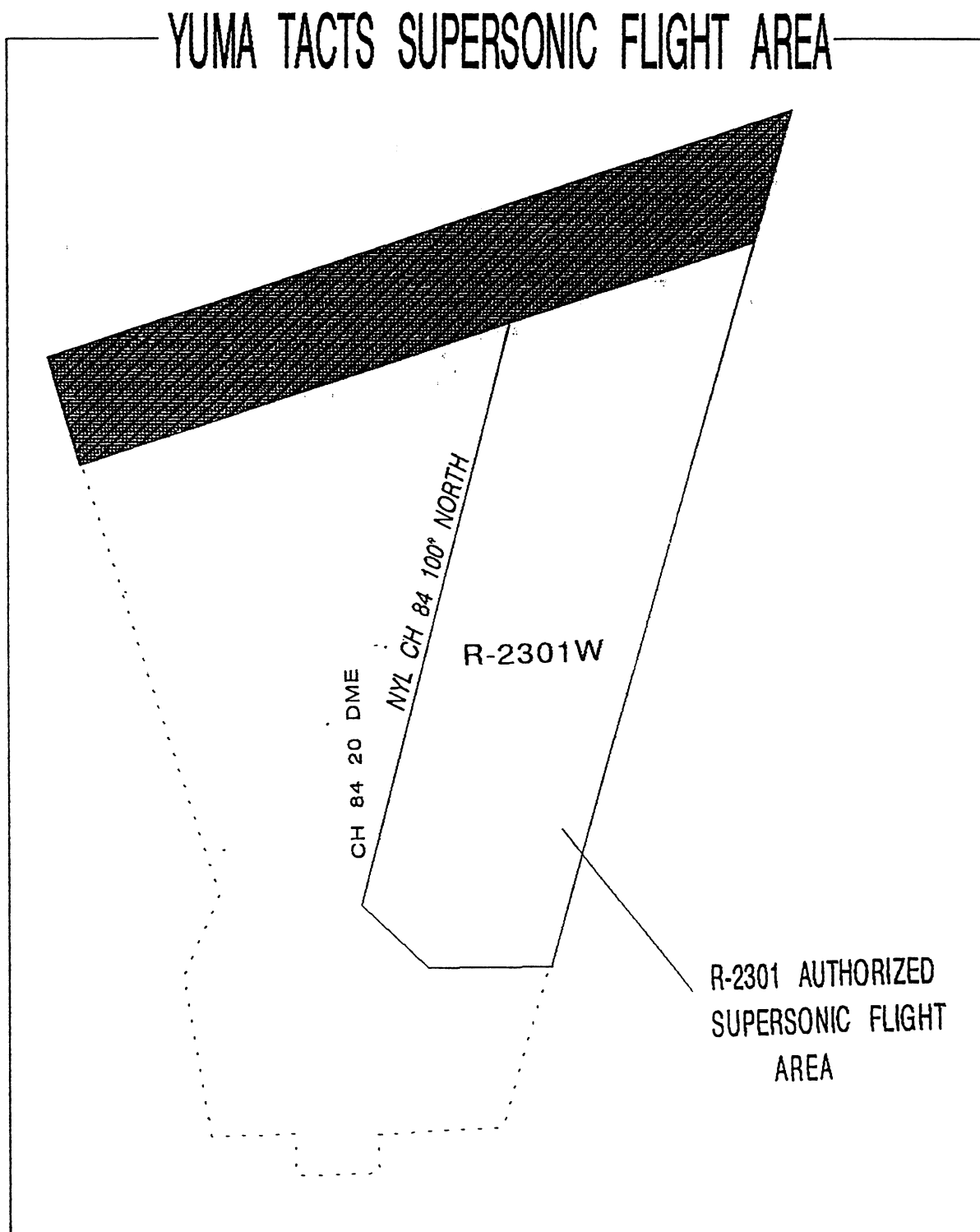
(4) If the duty runway is known, aircraft shall execute the approach to the duty runway. If the duty runway is unknown, execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH.

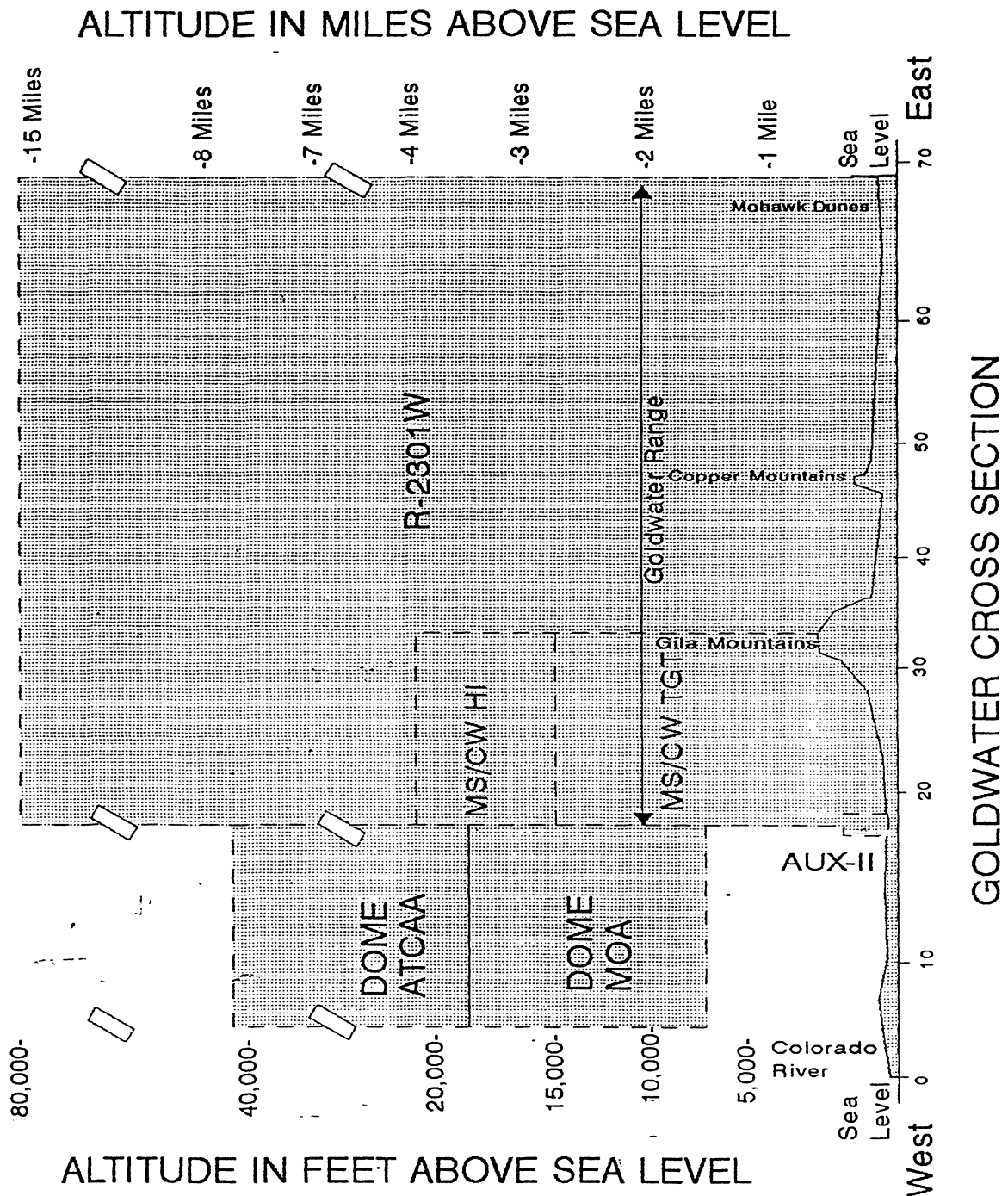
ENCLOSURE (5)

# YUMA TACTS RANGE (R-2301 WEST)



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AUXILIARY FIELDS

COMMON NAME. AUX-II

LOCATION. Yuma, Arizona. Located on the western boundary of R-2301 West and approximately 10 NM southeast of MCAS Yuma. Latitude and longitude is 32-32-33N/114-30-32W. Grid coordinates are QP338040.

DESCRIPTION. <sup>3,800</sup> <sup>100</sup> ~~4,000~~ feet X ~~100~~ feet ~~compact dirt~~ <sup>ASPHALT BLEND W/ SAND SURFACE</sup> North/South runway and an AM-2 matting East/West LHA Deck complete with an operations tower and associated lighting. SEE NOTE

TYPE EXERCISE/ORDNANCE. Multi-purpose auxiliary airfield designated for military training activities. No ordnance release is authorized.

FLOOR. Surface.

CEILING. 1,200 feet AGL.

RADIUS. 2 NM (Inclusive with Cactus West).

USAGE LIMITATIONS. No ordnance release.

RESOURCE MANAGER. Facilities MCAS Yuma. DSN: 951-2253.

SCHEDULING AUTHORITY. FACS FAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

COMMUNICATIONS. See standard format on Cactus West/Moving Sands.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speed letter (MSG/Fax) 30 days minimum.
3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

OVERLAPPING INCLUDED/ADJACENT AREAS, TARGETS

1. Moving Sands/Cactus West located in the extreme western edge of R-2301 West from the surface to 15,000 feet MSL.
2. Moving Sands/Cactus West High overlying Moving Sands/Cactus West from 16,000 feet MSL to FL200.

SURFACE IS STABILIZED AGGREGATE BASE  
SUITABLE FOR FULLY LOADED C130'S AND  
MINIMAL USE BY C-17'S

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3. West Coast Aircrew Combat Training System Range (WCTACTS) located immediately east of the Gila Mountains from 200 feet AGL (NDWT) or 5,000 feet MSL (ACM) to FL800.
4. MCAS Yuma rifle range located 2 NM due west of Aux-II.
5. R-2301 East located east of R-2301 West is controlled by Luke AFB (DSN 853-7053).

APPLICABLE DIRECTIVES. MCAS Yuma Letter of Instruction (LOI) 3710.7 dtd 10 Jul 1989. Contact MCAS Yuma Range Scheduling for copy of LOI at DSN 951-2214/2215.

REMARKS/SPECIAL INSTRUCTIONS

1. VEHICLE AREAS. Except for actual emergencies, all vehicles are strictly prohibited from driving on the runway, the LHA Deck, and/or the surrounding stabilized areas and surrounding desert area. Established roads must be used at all times.

2. AIRSPACE

a. Caution must be taken to avoid VFR traffic in the Class E airspace immediately west of Aux-II.

b. MCAS Yuma maintains a small arms rifle range 2.0 NM west of Aux-II.

3. AVAILABLE SUPPORT. All requests for any type of ground support must be made directly to the supplying unit/section. The following provides a partial listing of services available:

a. MWSS-371 (DSN) 951-2519/2520 or (c) 520-726-2519/2520. Fuel, operations check of the LHA Deck, lighting, equipment transportation, field communications, landing surface improvements or repairs and all LHA site maintenance.

b. Crash Crew (DSN) 951-2385/3411 or (c) 520-726-3411. Aircraft fire fighting and rescue services, aircraft salvage, and/or runway sweepers.

4. HELICOPTER OPERATIONS. Helicopters must restrict all landing/touch and go operations to the LHA Deck and North/South runway only. The matting and surrounding soil stabilization materials will not withstand the rotor wash and may pose a serious threat to aircraft safety, besides creating excessive FOD in an area frequently used by AV-8s. All transit across the matting or surrounding stabilization must be at or above 50 feet AGL.

5. FIXED-WING OPERATIONS. Aircrew using the LHA Deck may not fly more than two miles to the east of Aux-II unless the operating unit

ENCLOSURE (6)



has also scheduled Cactus West in conjunction with AUX-II. Essentially, all operations other than close-in CCAs require scheduling of Cactus West and AUX-II simultaneously. In addition, all fixed-wing operations to the AUX-II north/south runway require scheduling of AUX-II, Moving Sands, and Cactus West.

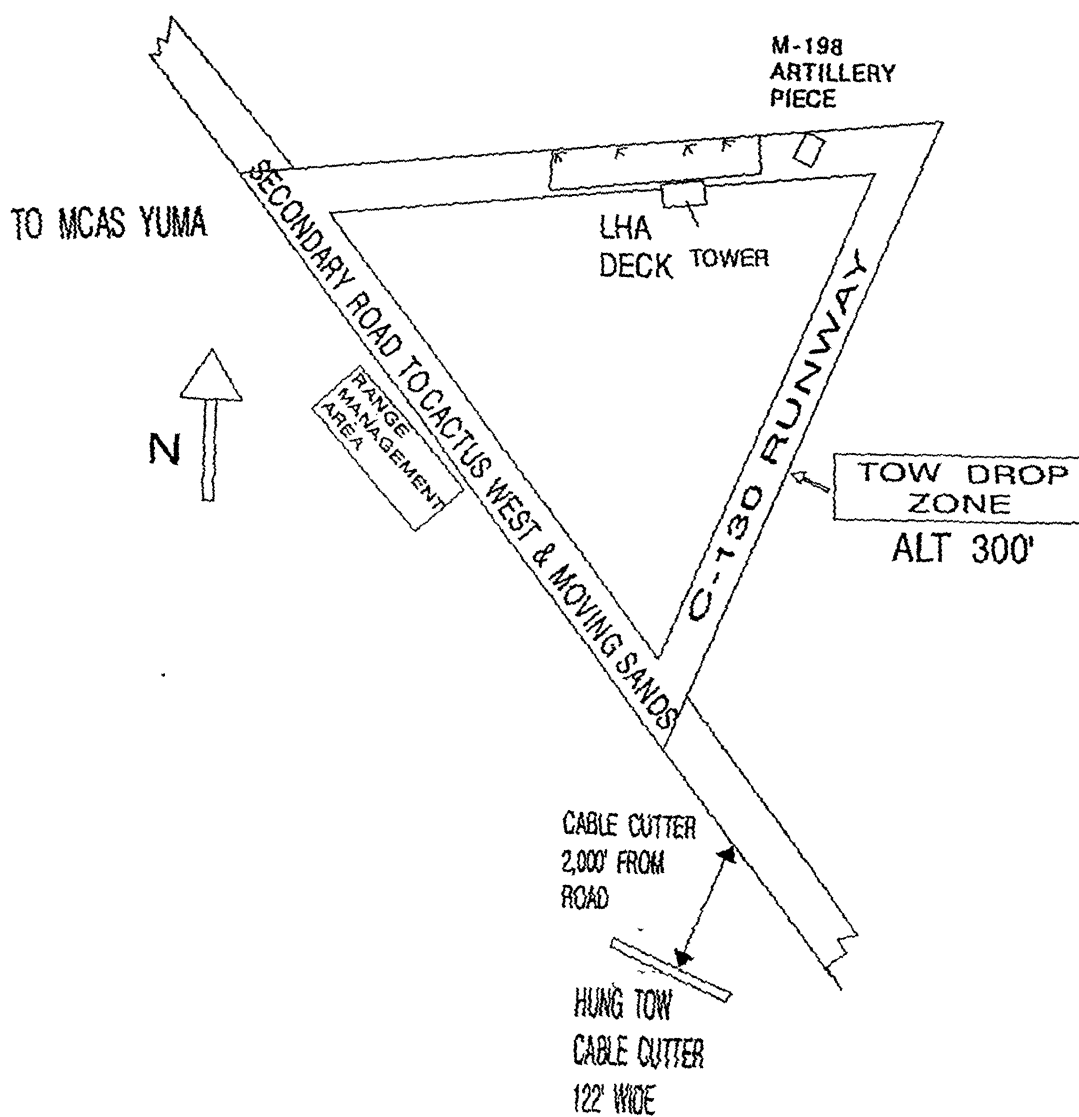
6. SECURITY. Each unit is responsible for the security of their own equipment at AUX-II.

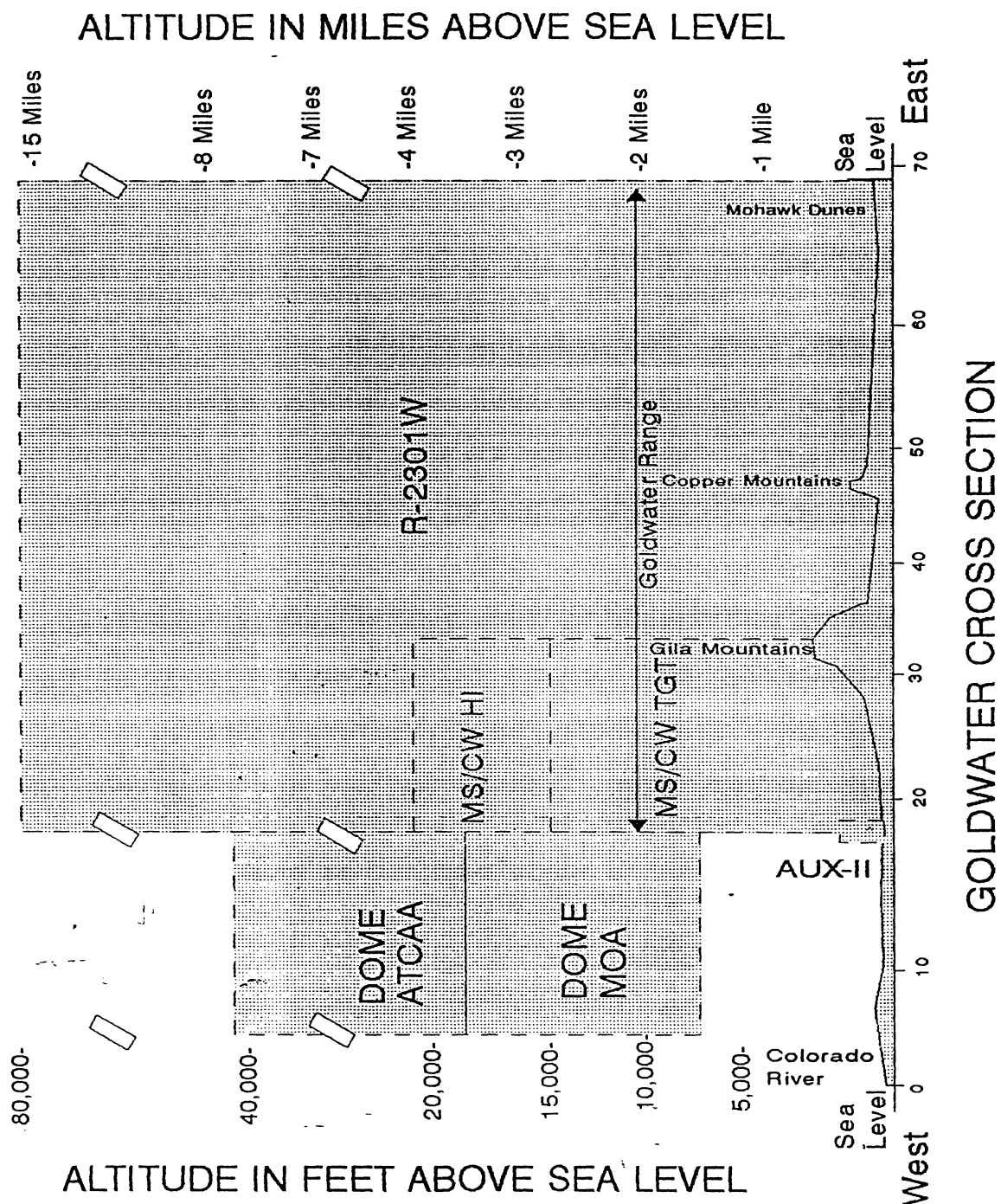
7. MEDICAL. Each unit is responsible for providing their own appropriate medical support. Crash Fire Rescue personnel are trained as emergency medical technicians and are available upon request. They will be provided when available so as not to conflict with their primary Crash Fire Rescue duties at MCAS Yuma.

8. Contact the Yuma Range Management Department for Bivouac procedures and sites. DSN: 951-3651/3318.

# AUX-II

## TOW DROP ZONE AND CUTTER





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COMMON NAME. AUX-IV (Rolle Field)

LOCATION. Somerton, Arizona. Latitude and longitude is  
114-41-50N/37-31-06W.

DESCRIPTION. Runway 17/35 is 2,800 by 50 feet. Construction is asphalt surrounded by 4,000 feet of oil treated, abandoned runway. Airfield lighting does not exist. Load bearing capacity is less than 12,000 lbs.

TYPE EXERCISE/ORDNANCE. Public use general aviation. No ordnance is authorized.

USAGE LIMITATIONS. VFR. No ordnance release.

RESOURCE MANAGER. Yuma County Airport authority, (520)726-5882.

SCHEDULING AUTHORITY. Yuma County Airport authority, (520)726-5882.

SCHEDULING ACTIVITY. MCAS Yuma Base Ops, DSN: 951-2207/2326.

COMMUNICATIONS

1. Common Traffic Advisory Frequency (CTAF) is 122.90 MHz.
2. MCAS Yuma monitors 121.5 MHz continuously.
3. UHF only aircraft are prohibited for safety reasons.

SCHEDULING DOCUMENT/LEAD TIME. OPAREA request not required. Contact MCAS Yuma Base Ops forty-eight hours in advance (minimum).

APPLICABLE DIRECTIVES. Rolle Field operations manual. Contact Yuma County Airport authority for a copy.

REMARKS/SPECIAL INSTRUCTIONS

1. Rolle Field is daytime, VFR only for general aviation.
2. Military, agriculture & Law Enforcement agencies conduct night operations at their own risk.
3. Skid configured aircraft are prohibited from touch & go's and full-stop landings on runway 17/35 and turnaround areas.
4. Parachute drops are not authorized.
5. Pattern altitude is 1,200 feet MSL.
6. Overnight parting is prohibited.

ENCLOSURE (6)

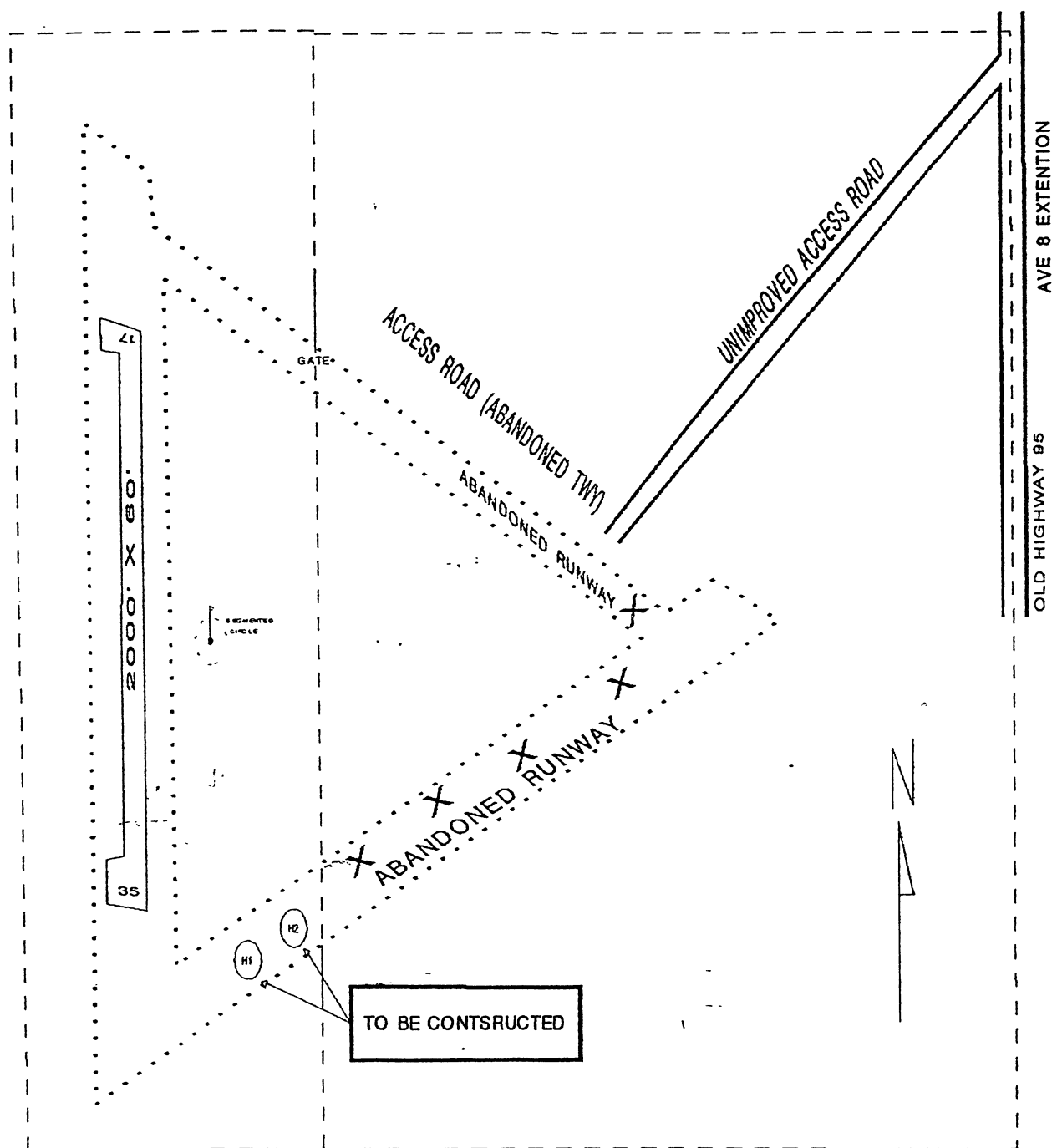
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7. GROUND ACCESS. Request for vehicle access must be made, in writing, to the Yuma County Airport authority.

ENCLOSURE (6)

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# AUX IV (ROLLE FIELD)









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IMPERIAL ATCAA

COMMON NAME. Imperial ATCAA

LOCATION/BOUNDARIES. Blythe, California

Latitude North

Longitude West

IMPERIAL NORTH

33-31-00	115-04-00
33-28-00	114-28-00
33-23-00	114-35-00
33-21-00	114-35-00
33-23-00	115-00-00
To point of origin.	

IMPERIAL SOUTH

33-23-00	115-00-00
33-21-00	114-35-00
33-03-00	114-35-00
33-03-00	114-30-00
32-58-00	114-30-00
32-57-00	115-11-00
33-09-00	114-57-00
33-16-30	114-56-00
To point of origin.	

DESCRIPTION. ATCAA is designated for military training activities in Class A Airspace. See page 3.

TYPE EXERCISE/ORDNANCE. ACM, air intercepts, all-weather flight training and tactical maneuvers. No ordnance release is authorized.

FLOOR. FL190.

CEILING. FL400.

USAGE LIMITATIONS. NO ORDNANCE RELEASE.

RESOURCE MANAGER. CO, MCAS Yuma.

SCHEDULING AUTHORITY. FACS FAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

COMMUNICATIONS. Yuma Range Control (274.0/124.15)

SCHEDULING DOCUMENT/LEAD TIME

ENCLOSURE (7)

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1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

APPLICABLE DIRECTIVES. Letter of Agreement between Los Angeles ARTCC, CO, MCAS Yuma, and CO, FACSAC San Diego.

REMARKS/SPECIAL INSTRUCTIONS. If flight is canceled, notify MCAS Yuma (ATC) so that airspace may be rescheduled.

[illegible]

YUMA RANGE CONTROL

LEGEND  
EARLY SHELF  
DEPICTION

3



MEMORANDUM

12 June 1997

Subj: AIR TO AIR MISSILE USE ON THE CHOCOLATE RANGES

1. As per phonecon with Capt. Johnson On 970613, air to air missile (AIM-9) use on the Chocolate Ranges is authorized **ONLY ON A CASE BY CASE BASIS.** R2507 N+S ONLY
2. The requesting unit must submit a request via e-mail or regular mail to the Range Management Department. at least 3 working days prior to the requested date, detailing all specifics of the requested missile launch, including but not limited to:
  - A. Unit requesting range
  - B. Callsigns and assigned frequencies of missile sortie.
  - C. Date requested.
  - D. Time requested.
  - E. Specific area of requested range.
  - F. Primary and alternate range I/P's.
  - G. Target release aircraft location at target release point.
  - H. Target release aircraft altitude at target release point.
  - I. Target release aircraft heading at target release point.
  - J. Target release aircraft airspeed at target release point.
  - K. Target release aircraft heading after target release.
  - L. Missile release aircraft location at missile release point.
  - M. Missile release aircraft altitude at missile release point.
  - N. Missile release aircraft heading at missile release point.
  - O. Missile release aircraft airspeed at missile release point.
  - P. Missile release aircraft heading after missile release.
  - Q. Reference procedures to follow in case of missile release malfunction.
  - R. Acknowledgement to contact Yuma Range Control if missile debris falls outside of requested range boundaries.
  - S. Any other information as required.
3. This required information may also be submitted on a map for easier reference.
4. Permission to launch air to air missiles on the range may only be granted by the Range Management Department after receipt of this information.
5. POC at Range Management Department for requesting units is Mr. Ron Pearce (Hawkeye) or Captain Greg Johnson (Big Hairy). #2405 FAX # 2216

A.H. FENWICK



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CHOCOLATE MOUNTAINS (R-2507 N - S) AIR TO AIR GUNNERY RANGE

COMMON NAME. Chocolate Mountain Aerial Gunnery Range (R-2507)

LOCATION/BOUNDARIES. East of the Salton Sea, California

<u>Latitude North</u>	<u>Longitude West</u>
33-32-40	115-33-50
33-31-30	115-32-00
33-31-15	115-26-45
33-29-00	115-20-00
33-25-50	115-14-30
33-24-15	115-17-00
33-23-00	115-14-30
33-21-40	115-12-00
33-22-50	115-09-58
33-08-45	114-56-40
33-01-00	115-06-00
33-14-00	115-22-30
33-21-30	115-32-55
33-23-40	115-33-20
33-28-30	115-42-10
To point of origin	

DESCRIPTION. Land surface and airspace.

TYPE EXERCISE/ORDNANCE. Air-to-Air/Air-to-Ground ordnance as required by mission, to include ROCKEYE AND LIVE CLUSTER BOMBS in specified areas. NO FIXED WING AIR TO AIR MISSILES AUTHORIZED.

FLOOR. Surface.

CEILING. FL400.

USAGE LIMITATIONS

1. VFR only. The north and south impact area will be closed as required for EOD sweeps and range maintenance. Dates will be published by message.
2. R-2507 North and South has a 5 NM BUFFER ZONE which is in effect whenever the North and South portions of R-2507 are scheduled separately. When in effect, the Buffer Zone will not be penetrated by aircraft or aircraft munitions. The western boundary follows the Niland Blythe Road from 33-16-45/115-27-30 to a point 33-24-30/115-16-45. The eastern boundary of the Buffer Zone follows a line from the Tortuga Flats Railway siding, Salvation Pass, to the Little Mule Mountains. Accordingly 33-11-30/115-19-15 to 33-16-00/115-15-45 to 33-19-00/115-04-45. The North and South limits follow existing

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R-2507 North and south boundaries. Aircraft will familiarize themselves with this buffer zone prior to flight.

3. Restricted airspace boundary does not extend to Naval Reservation boundary. Land space to the West designated SWAT-5, and South designated SWAT-4 of R-2507 North is utilized by Naval Special Warfare Group-1. Numerous rifle, machinegun and mortar ranges are utilized on a daily basis. Ref F delineates SWAT-4 and 5 range locations and regulations. **WARNING!** Special precautions need to be exercised by all parties to ensure airspace and ground utilization are compatible. NSWG-1 posts spotters and schedules utilization through MCAS Yuma.

4. Units using gas line road for access to Observation Posts must coordinate with NSWG-1 personnel at Siphon 10 (Camp Billy Machen). Point of contact is Camp Supervisor at (619) 339-5360 or NSWG-1 DSN 577-5392.

5. Live air-to-air gunnery may not be performed on the gunnery range if ground personnel are in R-2507 North.

RESOURCE MANAGER. CO, MCAS Yuma.

SCHEDULING AUTHORITY. FACSFAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into restricted area and prior to exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area.

a. Checking into

- (1) Callsign, number and type of aircraft.
- (2) Squadron.
- (3) Restricted area scheduled.
- (4) Tactical frequency used while in area.
- (5) Notify Yuma Range Control if requesting IFR clearance to exit area.
- (6) Ordnance on Board.

ENCLOSURE (8)



b. Exiting

- (1) Callsign, number and type of aircraft.
- (2) Number and type ordnance expended.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN 951-2214/2215.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done on a range available basis.

OVERLAPPING INCLUDED/ADJACENT AREAS, TARGETS

1. Chocolate Mountain Impact Area (R-2507 North and South A) located in R-2507 from surface to 6,000 feet MSL.
2. Chocolate Mountain Impact Area (R-2507 North and South B) located in R-2507 from 7,000 feet MSL to 15,000 feet MSL.
3. Chocolate Mountain Impact Area (R-2507 North and South C) located in R-2507 from 16,000 feet MSL to FL400.
4. Buffer Zone within R-2507 as defined in USAGE LIMITATIONS section of this enclosure.
5. Inert line within R-2507 North as defined in paragraph 2 of Remarks/Special Instruction section enclosure (9).
6. Abel North/South MOA/ATCC encircles R-2507 from 7,000 feet MSL to FL400.

REMARKS/SPECIAL INSTRUCTION

1. General Procedures. Tow Aircraft.

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a. The tow aircraft will act as tactical air controller airborne to ensure that live firing takes place in such a manner that expended ordnance falls well within the restricted area.

b. The maximum tow aircraft altitude is 20,000 feet MSL.

c. Range times shall be rigidly adhered to in order to provide the margin of safety necessary for full and efficient utilization of both the surface and air features of the range.

d. Firing shall not begin prior to the tow aircraft reaching the commence fire fix and shall terminate by the time the tow aircraft reaches the cease-fire fix. This is essential to provide an adequate fallout safety zone and not endanger civilian personnel who may be in the area just outside the range boundaries.

e. Chocolate Mountain Impact Area is also within the boundaries of R-2507.

f. For procedures dealing with trespassers within R-2507, refer to paragraph 12 of the main order.

## 2. Flight Pattern. Air-to-Air Gunnery.

a. After intercepting the 313 degree radial, 35 NM fix off the Yuma TACAN (NYL CH 84), the tow aircraft shall fly a track of 295 degrees magnetic. Firing may begin after passing this fix and shall cease upon reaching the 304 degree radial, 66.5 NM fix for 10,000 foot gunnery and the 304 degree radial, 65 NM fix for 20,000 foot gunnery. At this point the tow aircraft shall turn port to intercept the 300 degree radial 68 NM fix of NYL and track inbound on the 300 degree radial. Firing may commence after passing the 68 NM fix and shall cease at the 40.5 NM fix for 10,000 foot gunnery and 42 NM fix for 20,000 foot gunnery. See page 6.

b. At this time, only the above rectangular pattern is authorized for Air-to-Air gunnery in the CMAGR. However, fleet units are researching the feasibility to conduct circular patterns that will enable more realistic training and require less airspace.

## 3. Lost Communications

a. Procedures to be used in the event of two-way radio failure are prescribed in FAR 91.127. Should two-way radio failure occur when operating in R-2507 and it is not practical to recover using VFR procedures, aircraft shall proceed as follows:

(1) Aircraft shall squawk 7600.

(2) Aircraft shall maintain 17,000 feet MSL and proceed

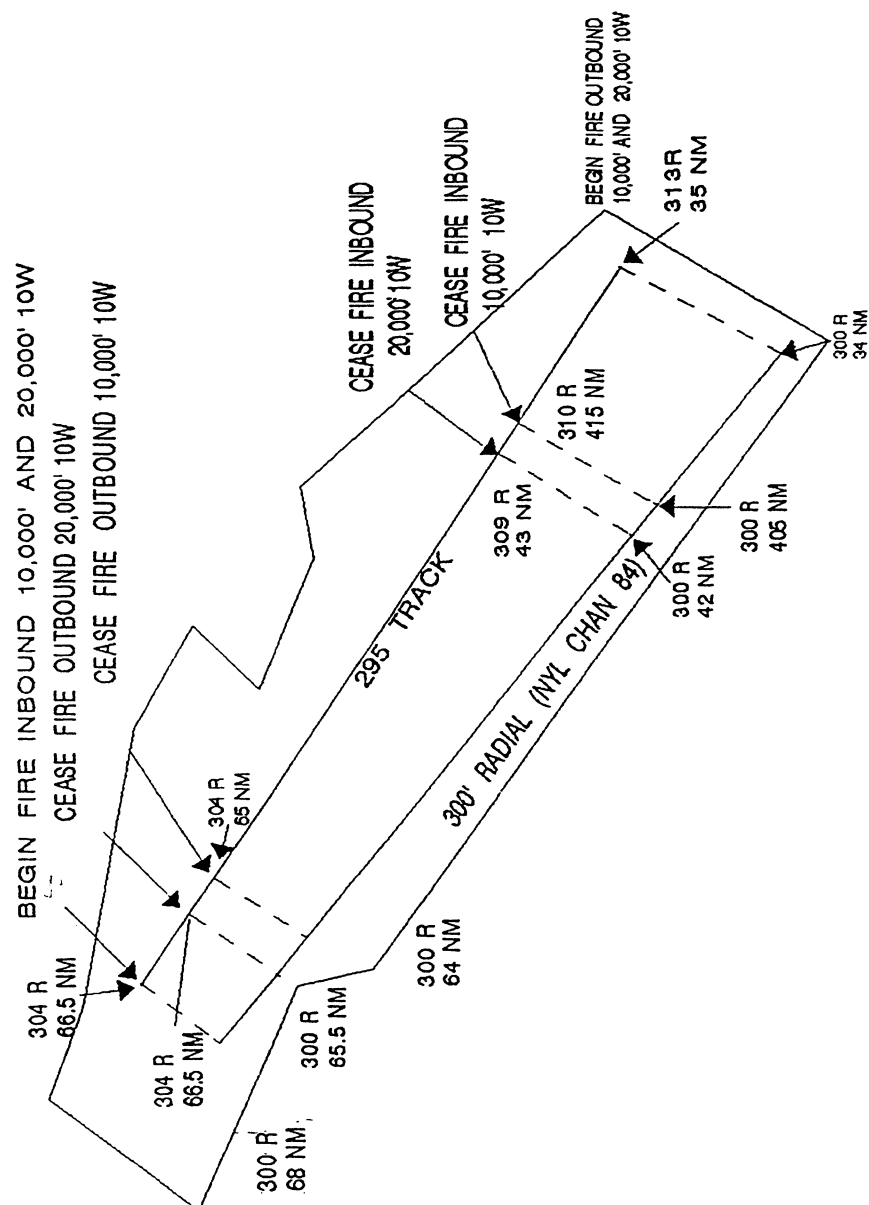
ENCLOSURE (8)

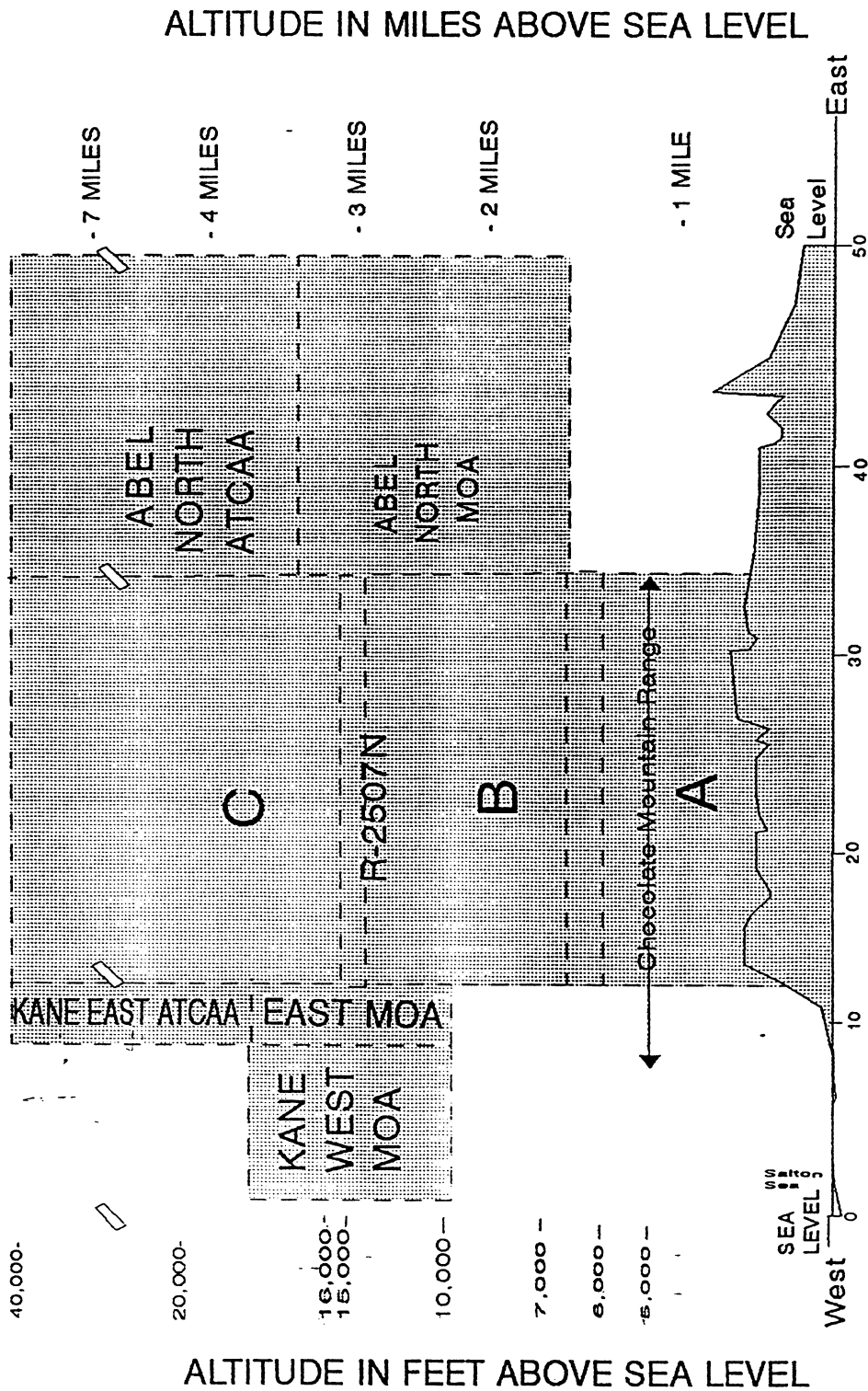
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direct to RADOS IAF and execute the HIGH TACAN RUNWAY 21 RIGHT APPROACH or HIGH TACAN RUNWAY 3 LEFT APPROACH.

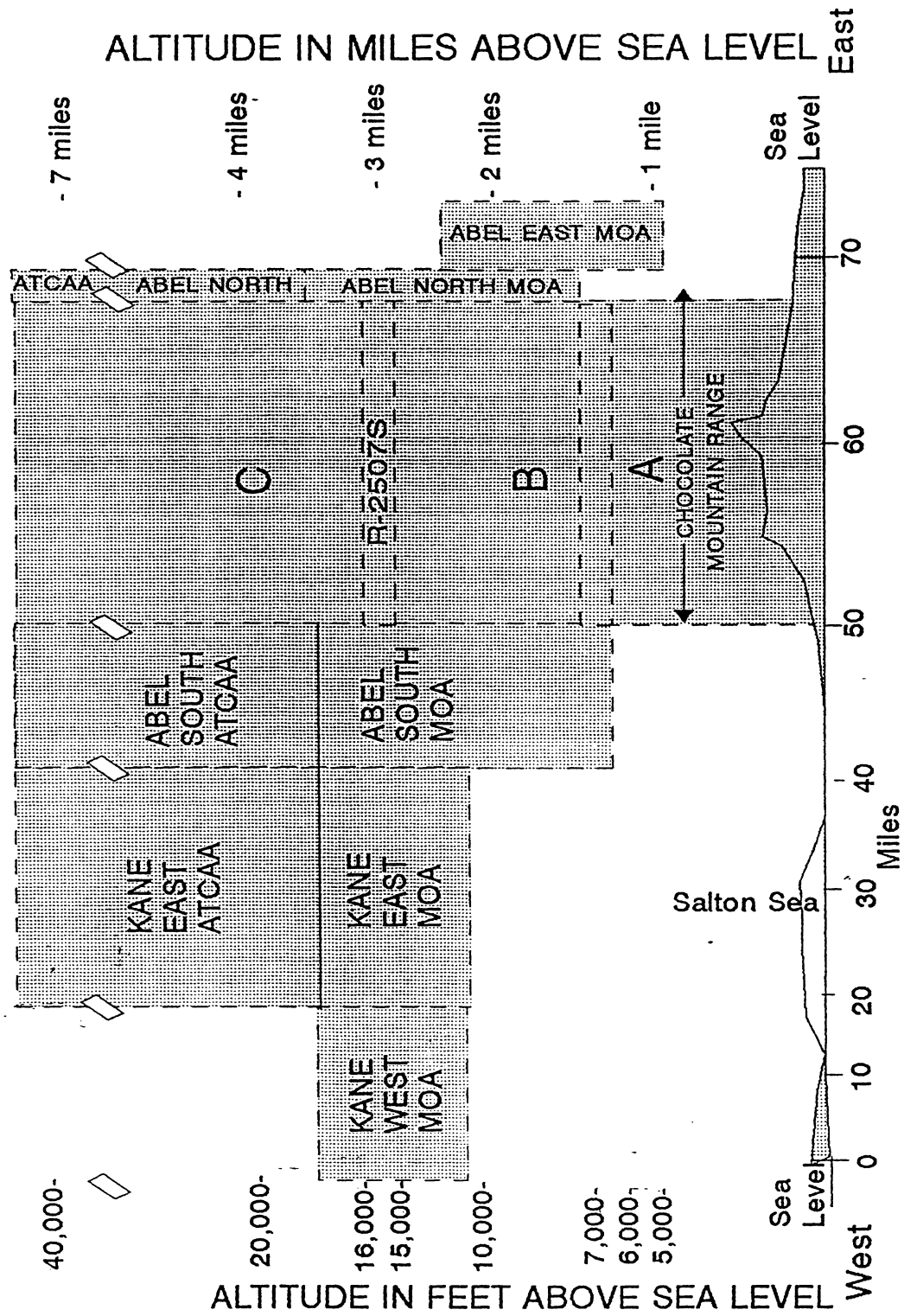
(3) If the duty runway is known, aircraft shall execute the approach to the duty runway. If the duty runway is unknown, execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH.

# CHOCOLATE MOUNTAIN AIR-TO-AIR GUNNERY RANGE R-2507 (NORTH AND SOUTH)



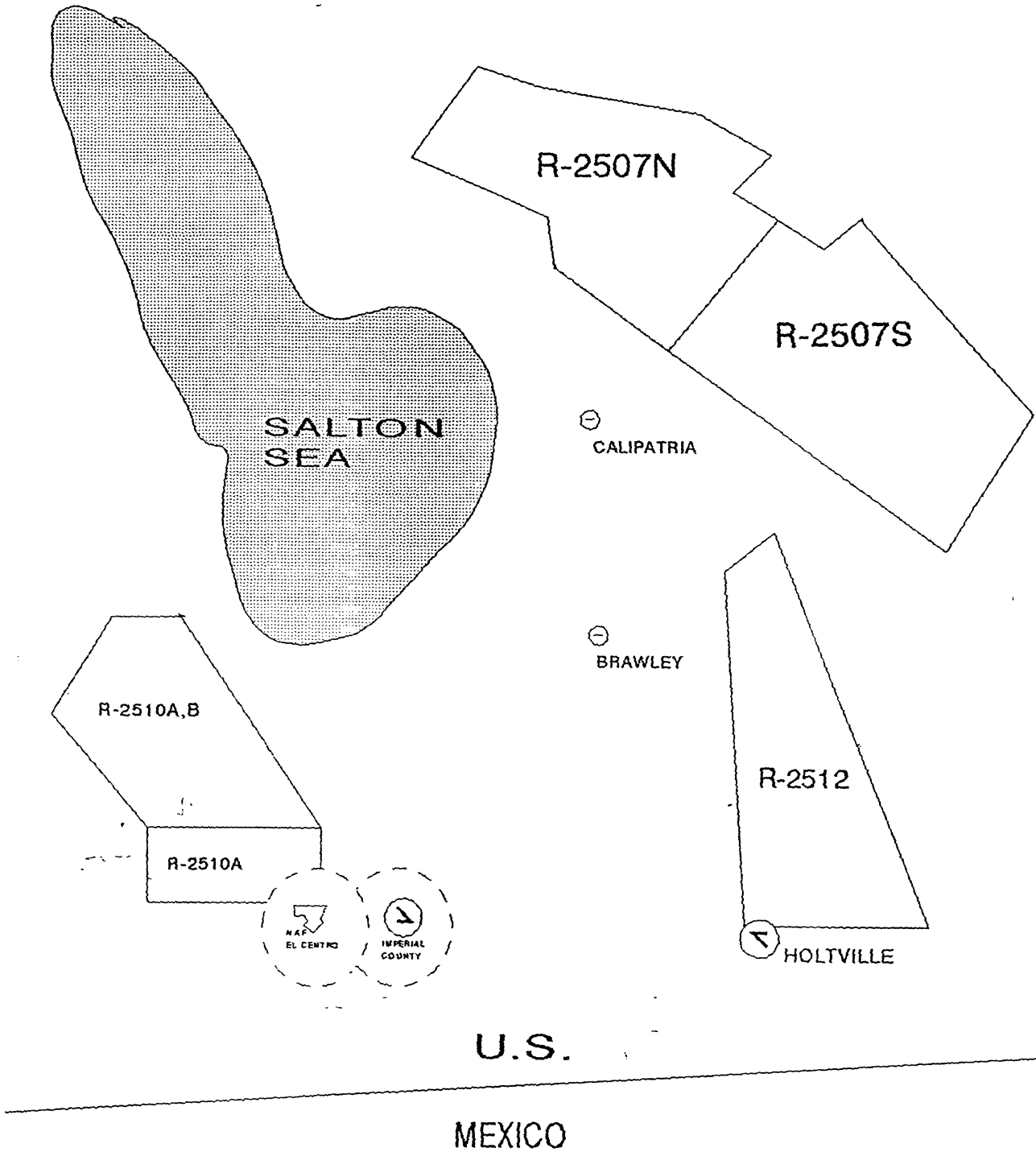


# CHOCOLATE NORTH CROSS SECTION



CHOCOLATE CENTRAL CROSS SECTION

## AREA VIEW OF RANGES







CHOCOLATE MOUNTAINS (R-2507 N - S) IMPACT AREA

COMMON NAME. Chocolate Mountain Impact Area (R-2507 North and South)

LOCATION/BOUNDARIES. East of the Salton Sea, California

1. Boundaries of R-2507 North

<u>Latitude North</u>	<u>Longitude West</u>
33-32-40	115-33-50
33-31-30	115-32-00
33-31-15	115-26-45
33-29-00	115-20-00
33-25-50	115-14-30
33-24-15	115-17-00
33-23-00	115-14-30
33-14-00	115-22-30
33-21-30	115-32-55
33-23-40	115-33-20
33-28-30	115-42-10
To point of origin.	

2. Boundaries of R-2507 South

<u>Latitude North</u>	<u>Longitude West</u>
33-23-00	115-14-30
33-21-40	115-12-00
33-22-50	115-09-58
33-08-45	114-56-40
33-01-00	115-06-00
33-14-00	115-22-30
To point of origin.	

DESCRIPTION. Five target complexes and assorted search and attack target locations consisting of more than 250 individual targets, 3 simulated airfields.

TYPE EXERCISE/ORDNANCE: All types of high explosives and inert ordnance up to and including 2,000 pound GP MK80 series bombs. All deliveries must be under positive control of Flight Lead or TACP/TAC (A). MK20 Rockeye or Improved Cluster bombs are authorized in specific areas with prior coordination. Napalm is authorized in the ICM Box and on Blue Mountain Air Field. NO FIXED WING AIR TO AIR MISSILES AUTHORIZED. Laser operations are authorized in accordance with special laser instructions. Coordinate with Yuma Range Management Department, DSN 951-3651.

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	R2507 North A R2507 South A	R2507 North B R2507 South B	R2507 North C R2507 South C
<u>FLOOR.</u>	Surface	7,000 feet MSL	16,000 feet MSL
<u>CEILING.</u>	6,000 feet MSL	15,000 feet MSL	40,000 feet MSL

#### USAGE LIMITATIONS

1. VFR only. The north and south impact areas will be closed as required for EOD sweeps and range maintenance. Dates will be published by message.

2. R-2507 North and South has a 5 NM BUFFER ZONE which is in effect whenever the North and South portions of R-2507 are scheduled separately. When in effect, the Buffer Zone will not be penetrated by aircraft or aircraft munitions. The western boundary follows the Niland Blythe Road from 33-16-45/115-27-30 to a point 33-24-30/115-16-45. The eastern boundary of the Buffer Zone follows a line from the Tortuga Flats Railway siding, Salvation Pass, to the Little Mule Mountains. Accordingly, 33-11-30/115-19-15 to 33-16-00/115-15-45 to 33-19-00/115-04-45. The north and south limits follow existing R-2507 boundaries. Aircraft will familiarize themselves with this buffer zone prior to flight.

3. Restricted airspace boundary does not extend to Naval Reservation Boundary. Land space to the West, designated SWAT-5, and south, designated SWAT-4, of R-2507 North is utilized by Naval Special Warfare Group-1. Numerous rifle, machinegun, and mortar ranges are utilized on a daily basis. Ref F delineates SWAT 4 AND 5 range locations and regulations. WARNING! Special precaution needs to be exercised by all parties to ensure airspace and ground utilization are compatible. NSWG-1 posts spotters and schedules utilization through MCAS Yuma.

4. Units using gas line road for access to Observation Posts must coordinate with NSWG-1 personnel at Siphon 10 (Camp Billy Machen). Point of contact is Camp Supervisor at (619) 339-5360 or NSWG-1 DSN: 577-5392.

5. Units utilizing OP's for TACP training contact Yuma Range Management to coordinate EOD support and feasibility. EOD support is mandatory for all ground entries into R-2507.

RESOURCE MANAGER. CO, MCAS Yuma.

SCHEDULING AUTHORITY. FACSAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

ENCLOSURE (9)

### COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into restricted area and prior to exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area:

a. Checking into:

- (1) Callsign, number, and type of aircraft.
- (2) Squadron.
- (3) Restricted area scheduled.
- (4) Tactical frequency used while in area.
- (5) Notify Yuma Range Control of requesting IFR clearance to exit area.
- (6) Ordnance on Board.

b. Exiting

- (1) Callsign, number, and type of aircraft.
- (2) Number and type ordnance expended.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN 951-2214/2215.

### SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

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OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS

1. Chocolate Mountain Impact Area (R-2507 North and South A) located in R-2507 from surface to 6,000 feet MSL.
2. Chocolate Mountain Impact Area (R-2507 North and South B) located in R-2507 from 7,000 feet MSL to 15,000 feet MSL.
3. Chocolate Mountain Impact Area (R-2507 North and South C) located in R-2507 from 16,000 feet MSL to FL400.
4. Buffer Zone within R-2507 as defined in USAGE LIMITATIONS section of this enclosure.
5. Inert line within R-2507 North as defined in paragraph 2 of REMARKS/SPECIAL INSTRUCTIONS below.
6. Abel North/South MOA/ATCC encircles R-2507 from 7,000 feet MSL to FL400.

REMARKS/SPECIAL INSTRUCTIONS

1. General

a. Maps Required. AMS Edition Series V795 1:50,000.

- (1) Frink, California 2850 I
- (2) Iris Pass, California 2950 IV
- (3) Chuckwalla Spring, California 2950 I
- (4) Acolita, California 2950 II
- (5) Irish, California 2950 II
- (6) Quartz Peak, California 2551 II
- (7) Hayfield, California 2551 II
- (8) Chuckwalla Mountains, California 2951 II

b. Tactical Air Control Party (TACP). TACP operations may be approved on a case by case basis. Include request in OPAREA Request Format Item I. For further information contact MCAS Yuma Range Management, DSN 951-3651. Helo insertion/extraction will more likely be approved than ground insertion/extraction. TACP will be granted access only during approved range period time blocks.

- (1) TACP Ground insertion and extraction procedures must be coordinated with MCAS Yuma Range Management.

ENCLOSURE (9)

\* REFERENCE MESSAGE 110755Z MAR 96  
ACFT MISMAP REPORT

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(2) TACP shall monitor 274.0 MHz continuously while in R-2507.

(3) In the event of lost communication with the TACP, aircraft may utilize Deadman CAS Range for ordnance jettison after a visual sweep of the target area.

(4) TACP shall be accompanied by an EOD technician. Refer to paragraph 7 of this order for more information.

(5) TACP shall operate only from approved OP's. Vehicles will not stray off existing roads.

(6) TACP must provide two-way communication between themselves and Yuma Range Control/Base Operations AT ALL TIMES. This is the responsibility of the requesting unit. Yuma Ground Electronics may assist, DSN: 951-2407.

c. Artillery/Mortar

(1) Artillery/mortar fires will only be conducted from approved sites, during scheduled range periods, and must be coordinated with Yuma Range Management, DSN: 951-3651/3318.

(2) Artillery/mortar fire can only be conducted in support of, or in preparation for aviation training.

(3) Refer to paragraph 7 of this order for more information.

d. For procedures dealing with trespassers within R-2507, refer to paragraph 12 of the main order.

2. Range Regulations

a. All units using the CMAGR Impact Areas for high explosive ordnance delivery must be briefed on the locations of no-drop areas, designated live and inert impact areas, target ordnance compatibility, observation post locations and safety procedures prior to using the impact area.

b. The following locations and the area within 1,000 meters of each ARE PROHIBITED FROM ANY LIVE OR INERT ORDNANCE DELIVERIES: Gas Line Road, PG 401850 to PG 423990 to PH 402110. Niland Blythe Road, PG 434815 to PG 529861 to PG 556900 to PG 580968 to PG 600978.

(1) OBSERVATION  
POSTS

GRID COORDINATES

LAT/LONG

OP 1:	PG 365 977	33-24-42N/115-31-55W
OP 2:	PG 381 928	33-22-00N/115-31-00W
OP 3:	PG 439 931	33-22-10N/115-27-15W

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OP 4:	PG 488 915	33-21-15N/115-24-00W
OP 5:	PG 512 972	33-24-15N/115-22-20W
OP 6:	PH 388 067	33-29-30N/115-30-20W
OP 7:	PG 747 769	33-15-26N/115-06-31W
OP 8:	PG 763 869	33-28-25N/115-29-15W
OP 9:	PH 483 029	33-27-25N/115-24-15W
OP 10:	Not Authorized	
OP FEETS:	PG 762 812	33-15-45N/115-06-05W
OP SLATS:	PH 405 046	33-28-30N/115-30-50W

(2) GUN POSITIONS GRID COORDINATES

GP 1:	PG 471 837
GP 2:	PG 422 969
GP 4:	PG 420 869
GP 6:	PG 442 869
GP 7:	PG 408 889
GP 8:	PG 560 920
GP 9:	PG 571 955
GP 10:	PG 472 917
GP 11:	PG 442 927

c. No HIGH EXPLOSIVE ORDNANCE of any type will be dropped south of the INERT LINE. The Inert Line is defined as a line from PH 162 040 to PH 315 037 to PH 390 025 to PG 473 993 to PG 522 970 to PG 570 946. The area south of the Inert Line is designated for inert bombs, rockets, and strafing only.

d. Targets of Opportunity

N = R-2507 North, S = R-2507 South, and H = Helo Only.

AREA	DESCRIPTION	(NUMBER OF TARGETS)
1N	M60 Tanks	
2N	Advance Party	(8)
3N	Advance Guard (BN) (-) REIN	(5)
6N	Defensive Area	(14)
7N	Armored Column	(16)
8N	Armored Column	(16)
9N	SA-6 Site	(6)
10N	SAM Site with Aircraft Runways	(7)
11N	SAM Site	(7)
12N	SAM Site	(7)
13N	Advance Party	(8)
14N	Convoy	(8)
15N	Aircraft Runways and Parking Ramp	
1S	SAM Site	(7)
2S	Convoy	(8)

ENCLOSURE (9)

3S	Advance Guard (BN (-) REIN)	(13)
4S	Combat Recon Patrol	(4)
5S	Railroad Train with Tracks	(7)
6S	Bunker Complex	(2)
7S	SAM Site	(7)
10S	SA-6 Site	(7)
11S	SAM Site	(7)
12S	SAM Site	(7)
13S	SAM Site	(7)
14S	SAM Site	(7)
15S	Aircraft Runways with POL Site	(8)

(2) Location of Targets

<u>AREA</u>	<u>GRID COORDINATES</u>	<u>LAT/LONG</u>
1N	PG 489 943	33-22-46N/115-23-57W
2N	PH 467 023	33-27-07N/115-25-18W
3N	PH 395 045	33-28-21N/115-29-55W
6N	PG 454 939	33-22-35N/115-26-13W
7N	PG 469 958	33-23-35N/115-25-14W
8N	PG 390 980	33-24-51N/115-30-18W
9N	PH 449 054	33-28-48N/115-26-26W
10N	PH 440 035	33-27-47N/115-27-02W
11N	PH 443 035	33-27-47N/115-26-50W
12N	PH 380 920	34-15-42N/115-30-04W
13N	PH 505 997	34-19-46N/115-21-51W
14N	PH 476 991	34-19-28N/115-23-44W
15N	PH 486 875	34-13-11N/115-23-13W
1S	PG 695 839	33-16-57N/115-10-48W
2S	PG 739 789	33-14-15N/115-08-00W
3S	PG 684 800	33-14-51N/115-11-33W
4S	PG 726 835	33-16-43N/115-08-48W
5S	PG 738 827	33-16-16N/115-08-02W
6S	PG 761 796	33-14-34N/115-06-35W
7S	PG 785 785	33-13-57N/115-05-04W
10S	PG 765 822	33-15-58N/115-06-18W
11S	PG 775 815	33-15-35N/115-05-40W
12S	PG 735 808	33-15-14N/115-08-15W
13S	PG 718 805	33-15-06N/115-09-21W
14S	PG 773 774	33-13-22N/115-05-51W
15S	PG 740 815	33-15-37N/115-07-55W

e. Common check points used by MAWTS-1

<u>NAME</u>	<u>GRID COORDINATES</u>	<u>LAT/LONG</u>
Turtle	QG 032 595	33-03-36N/114-49-42W
Buck	QG 040 422	32-54-12N/114-49-12W

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Bull	PG 836 594	33-03-42N/115-02-00W
Gambler	PG 918 694	33-09-00N/114-56-42W
Panther	PG 766 731	33-11-00N/115-06-30W
Blitz	PG 769 872	33-18-42N/115-06-12W
Breaker	PH 703 031	33-27-12N/115-10-00W
Invader	PG 661 880	33-19-12N/115-13-00W
Charger	PG 612 955	33-23-06N/115-15-54W
Stallion	PG 489 912	33-21-06N/115-24-12W
Mauler	PG 440 931	33-22-06N/115-27-06W
Federal	PG 596 772	33-13-36N/115-17-30W
Star	PG 629 681	33-08-30N/115-15-12W
Snake	PG 376 921	33-21-48N/115-31-12W
Spider	PG 540 872	33-18-30N/115-20-48W
Stone	PG 994 690	33-08-35N/114-51-44W
Toad	PG 800 526	32-59-54N/115-04-24W
Catcher	PG 770 790	33-14-30N/115-06-00W
Sun	PG 508 729	33-11-06N/115-23-00W
Frog	PG 700 603	33-04-00N/115-10-36W
Tadpole	PG 870 467	32-57-00N/115-00-00W
Pond	PG 620 462	32-56-30N/115-13-39W

f. Live air-to-air gunnery may not be performed on the gunnery range if ground personnel are within range boundaries.

g. Prior to commencing any strike, the flight leader, TAC(A) or FAC shall make a visual check of the impact area for trespassing personnel. Refer to paragraph 12 of this order for specific procedural information concerning trespassers.

3. There are four live ordnance close air support ranges, one Improved Conventional Munition Range (ICM Box) and one Helicopter Range located within R-2507:

a. The DEAD MAN CAS Range. The CAS boundary forms a rectangle with corners at PH 3805, PH 4005, PH 4003, and PH 3803. This range contains one armor column and normal targets of opportunity.

b. The IRIS WASH CAS Range. The CAS boundary forms a rectangle with corners at PH 4700, PH 4802, PH 5200, and PG 5198. This range contains numerous targets of opportunity.

c. The PUNCHBOWL CAS Range. The boundary forms a rectangle with corners at PH 4803, PH 4605, PH 4302, and PH 4500. This target contains bisecting 6,000 feet X 100 feet runways with an associated ramp area.

d. The BLUE MOUNTAINS CAS Range. The boundary forms a rectangle with corners at PG 7279, PG 7282, PG 7682, and PG 7679. This range contains two bisecting run-ways, 8,000 feet X 100 feet and 6,000 feet X 100 feet with taxiways and an aircraft parking ramp. The airfield

ENCLOSURE (9)



is surrounded by four SAM/AAA sites with a bulk POL dump to the west and an ammunition depot to the east.

e. The ICM BOX Range. The boundary forms a rectangle with corners at PG 5095, PG 5096, PG 5295, PG 5296. This range contains three tank hulks as targets of opportunity. The ICM Box is the only range south of the Inert Line in R-2507 North which accepts live ordnance.

f. The MOUNT BARROW Range (HELO ONLY). The boundary forms a rectangle with corners at PG 8968, PG 9170, PG 892723, and PG 8770. This range contains a single runway, 3,000 feet X 200 feet, with taxiway and an aircraft parking ramp. The airfield complex contains a vehicle storage area and bulk POL dump. CAUTION: MOUNT BARROW CAS Range is extremely close to the restricted area boundary of R-2507 South, therefore, it is restricted to HELO'S ONLY. Exercise caution to ensure all impacts are within the restricted area, and all helo's remain within restricted airspace while firing. Boundary coordinates have been updated.

#### 4. Tactical air control for close air support and non-close air support missions

a. CLOSE AIR SUPPORT MISSIONS. All close air support missions delivering live ordnance in the designated CAS ranges must be under the positive control of a Forward Air Controller or a Tactical Air Controller (Airborne).

b. CLOSE AIR SUPPORT (CAS). COMTACGRUONE will provide CAS training on request. Submit request to COMTACGRUONE, FPO San Francisco, CA 96601 after range schedule has been confirmed. COMTACGRUONEINST 3710.1\_ refers. A scheduling lead time of 60 days is desired. Point of contact at COMTACGRUONE is CAS Section, DSN: 577-3816/3828/3771.

c. NON-CLOSE AIR SUPPORT MISSIONS. For all non-close air support missions delivering live ordnance in the impact area, the flight leader of individual flights will act as the TAC (A) for purposes of control.

#### 5. Ordnance restrictions

a. Due to past noise complaints, High Explosive Ordnance deliveries are restricted to the hours of 0700-2100 Pacific Standard Time and 0800-2200 Pacific Daylight Time.

b. ALPHA strikes and multiple live ordnance drops during a single run are authorized on the DEAD MAN CAS Range and BLUE MOUNTAIN CAS Range only. All other targets are restricted to a single drop per run.

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c. Unauthorized cluster munitions continue to be found in the CMAGR ICM Box. Continued disregard for range regulations cause serious safety problems for ground maintenance/EOD personnel. The following live dispensed munitions are the only authorized munitions to be used in the ICM Box. These munitions MAY NOT BE EMPLOYED ON OTHER CMAGR RANGES. Other munitions may be approved on a case-by-case basis. Contact Yuma Range Management, DSN: 951-3651/3318 for more information.

DISPENSER UNIT

SUBMUNITION

MK 20/MK7

M118 Rockeye and all MODS

CBU 59

BLU 77 APAM and all MODS

CBU 52

BLU 61(softball) Impact Fuze only

CBU 58

BLU 63(baseball) Impact Fuze only

CBU 87

BLU 97

d. The BLUE MOUNTAIN CAS Range is the only designated drop area in R-2507 South.

6. Laser Operations/Restrictions. All target areas in R-2507 North and R-2507 South are considered safe for most airborne, vehicle mounted and hand-held lasers used under the following general conditions. TACP will utilize only the ten identified OP's for controlling aircraft.

a. General Conditions

(1) All intended firings must be requested in the OPAREA Request and approved by Yuma Range Management.

(2) Lasing is not allowed until the target has been positively identified and a cold pass has been conducted to ensure ground personnel are clear of the area.

(3) Laser operations shall cease if the pilot in command or the system operator is dissatisfied with the target tracking, if other unprotected aircraft enter within 10 degrees of lase, and if unauthorized personnel enter the Restricted Area.

(4) All personnel within the Nominal Ocular Hazard Area (NOHA) must be provided with protective goggles of optical density six or greater at the laser wavelength. All airborne aircrew within 5 NM of the target area shall have suitable laser protective eyewear in place during laser operations.

(5) All laser operations shall commence and cease within the confines of R-2507 North and South.

(6) Laser reports will be furnished to MCAS Yuma Range Management as delineated in paragraph 8 of this order.

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b. DEAD MAN CAS TARGET. These targets are considered safe for most airborne lasers.

(1) Targets are within a rectangle formed with corners at PH380050, PH400050, PH400030, and PH380030.

(2) Laser operations are permitted for 360 degrees of designating. Parameters are listed below:

SLANT DISTANCE TO TARGET (NM)	MIN. SAFE LASING ALTITUDE (FT MSL)		SLANT DISTANCE TO TARGET (NM)	MIN. SAFE LASING ALTITUDE (FT MSL)	
	120 TO	211 TO		120 TO	211 TO
	210	119		210	119
12.0	3,691	3,257	4.5	1,519	1,415
11.5	3,512	3,107	4.0	1,413	1,324
11.0	3,338	2,960	3.5	1,312	1,237
10.5	3,169	2,817	3.0	1,216	1,154
10.0	3,005	2,679	2.5	1,124	1,075
9.5	2,846	2,544	2.0	1,038	1,000
9.0	2,691	2,413	1.5	956	929
8.5	2,542	2,286	1.0	879	862
8.0	2,397	2,164	0.5	807	799
7.5	2,257	2,045	0.0	740	740
7.0	2,122	1,930	-0.5	777	769
6.5	1,992	1,819	-1.0	818	801
6.0	1,866	1,712	-1.5	865	838
5.5	1,746	1,609	-2.0	916	879
5.0	1,630	1,510	-2.5	972	924

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c. IRIS WASH CAS TARGET AREA. Iris Wash targets are considered safe for most airborne lasers.

(1) Targets are within the area defined by the rectangle formed with corners at PH470000, PH480020, PH520000, and PG510980.

(2) Laser operations are permitted for 360 degrees of designating. Parameters are listed below:

SLANT MIN SAFE LASING ALTITUDE					SLANT MIN SAFE LASING ALTITUDE				
DIST FEET MSL					DIST FEET MSL				
TO TRGT	090 TO 150	151 TO 225	226 TO 300	301 TO 089	TO TRGT	090 TO 150	151 TO 225	226 TO 300	301 TO 089
12.0	3,023	3,892	3,042	2,568	4.5	1,309	1,442	1,190	954
11.5	2,870	3,685	2,881	2,418	4.0	1,222	1,329	1,108	896
11.0	2,721	3,484	2,726	2,273	3.5	1,139	1,222	1,033	843
10.5	2,578	3,289	2,576	2,135	3.0	1,062	1,121	962	797
10.0	2,439	3,101	2,431	2,002	2.5	989	1,027	897	757
9.5	2,305	2,918	2,292	1,876	2.0	921	939	837	724
9.0	2,175	2,742	2,158	1,756	1.5	857	857	782	696
8.5	2,050	2,573	2,029	1,643	1.0	798	782	722	674
8.0	1,930	2,409	1,906	1,535	0.5	744	713	689	659
7.5	1,815	2,252	1,788	1,434	0.0	695	650	650	650
7.0	1,704	2,102	1,675	1,338	-0.5	650	705	703	689
6.5	1,598	1,957	1,567	1,249	-1.0	688	765	761	733
6.0	1,497	1,819	1,465	1,166	-1.5	732	833	824	784
5.5	1,401	1,687	1,368	1,089	-2.0	780	906	893	841
5.0	1,309	1,561	1,276	1,018	-2.5	832	986	966	904

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d. PUNCHBOWL TARGET AREA. Punchbowl targets are considered safe for most airborne lasers.

(1) Targets are within the area defined by the rectangle formed with corners at PH430020, PH460050, PH480030 and PH450000.

(2) Laser operations are permitted for 360 degrees of designating. Parameters are listed below:

SLANT DISTANCE	MIN. SAFE LASING ALTITUDE (FT MSL)		SLANT DISTANCE	MIN. SAFE LASING ALTITUDE (FT MSL)	
TO TRGT	090 TO 240	241 TO 089	TO TRGT	090 TO 240	241 TO 089
(NM)			(NM)		
12.0	4,652	3,920	4.5	1,733	1,407
11.5	4,409	3,699	4.0	1,594	1,301
11.0	4,173	3,485	3.5	1,642	1,202
10.5	3,943	3,279	3.0	1,336	1,112
10.0	3,721	3,080	2.5	1,218	1,029
9.5	3,506	2,890	2.0	1,106	954
9.0	3,297	2,707	1.5	1,002	886
8.5	3,096	2,532	1.0	904	826
8.0	2,901	2,364	0.5	814	774
7.5	2,713	2,204	0.0	730	730
7.0	1,533	2,052	-0.5	783	778
6.5	1,359	1,908	-1.0	844	834
6.0	2,192	1,771	-1.5	911	898
5.5	2,032	1,642	-2.0	985	969
5.0	1,879	1,520	-2.5	1,066	1,048

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e. BLUE MOUNTAIN CAS TARGET AREA. Blue Mountain targets are considered safe for most airborne lasers.

(1) Targets are within the area defined by the rectangle formed with corners at PG720820, PG760820, PG760790 at PG720790.

(2) Laser operations are permitted for 360 degrees of designating. Parameters are listed below:

SLANT DISTANCE			MIN. SAFE LASING ALTITUDE (FT MSL)			SLANT DISTANCE			MIN. SAFE LASING ALTITUDE (FT MSL)		
TO TRGT	120 TO 240	241 TO 119	TO TRGT	120 TO 240	241 TO 119	TO TRGT	120 TO 240	241 TO 119	TO TRGT	120 TO 240	241 TO 119
(NM)			(NM)			(NM)			(NM)		
12.0	2,760	3,270	4.5	882	1,073	4.5	882	1,073	4.5	882	1,073
11.5	2,587	3,076	4.0	811	981	4.0	811	981	4.0	811	981
11.0	2,421	2,889	3.5	747	896	3.5	747	896	3.5	747	896
10.5	2,262	2,708	3.0	690	818	3.0	690	818	3.0	690	818
10.0	2,109	2,534	2.5	640	746	2.5	640	746	2.5	640	746
9.5	1,964	2,368	2.0	595	954	2.0	595	954	2.0	595	954
9.0	1,825	2,208	1.5	559	681	1.5	559	681	1.5	559	681
8.5	1,693	2,054	1.0	530	572	1.0	530	572	1.0	530	572
8.0	1,568	1,908	0.5	506	528	0.5	506	528	0.5	506	528
7.5	1,449	1,768	0.0	490	490	0.0	490	490	0.0	490	490
7.0	1,338	1,636	-0.5	504	518	-0.5	504	518	-0.5	504	518
6.5	1,233	1,510	-1.0	525	552	-1.0	525	552	-1.0	525	552
6.0	1,135	1,390	-1.5	553	593	-1.5	553	593	-1.5	553	593
5.5	1,044	1,278	-2.0	587	641	-2.0	587	641	-2.0	587	641
5.0	960	1,172	-2.5	629	696	-2.5	629	696	-2.5	629	696

f. MOUNT BARROW HELICOPTER RANGE. Mount Barrow targets are considered safe for most airborne lasers.

(1) Targets are within the area defined by the rectangle formed with corners PG870700, PG892723, PG910700, and PG890680.

(2) Laser operations are permitted for 360 degrees of designating. Parameters are listed below:

SLANT MIN SAFE LASING ALTITUDE					SLANT MIN SAFE LASING ALTITUDE				
DIST FEET MSL					DIST FEET MSL				
TO TRGT	000 TO 135	136 TO 195	196 TO 330	331 TO 359	TO TRGT	111 TO 135	136 TO 195	196 TO 330	331 TO 359
12.0	25,002	12,002	24,314	8,623	4.5	4,192	2,254	3,921	2,486
11.5	23,043	11,092	22,370	8,092	4.0	3,469	1,921	3,228	2,216
11.0	21,148	10,203	20,510	7,578	3.5	2,830	1,627	2,619	1,963
10.5	19,345	9,353	18,734	7,082	3.0	2,274	1,374	2,092	1,728
10.0	17,625	8,543	17,041	6,603	2.5	1,801	1,165	1,650	1,511
9.5	15,988	7,772	15,431	6,142	2.0	1,412	1,031	1,290	1,311
9.0	14,435	7,042	13,905	5,698	1.5	1,105	915	1,014	1,128
8.5	12,964	6,351	12,462	5,271	1.0	882	819	850	963
8.0	11,577	5,700	11,103	4,862	0.5	742	743	781	815
7.5	10,272	5,088	9,826	4,471	0.0	685	685	685	685
7.0	9,051	4,517	8,634	4,096	-0.5	772	773	742	806
6.5	7,913	3,985	7,524	3,839	-1.0	873	880	882	946
6.0	6,858	3,492	6,498	3,400	-1.5	1,014	1,007	1,105	1,105
5.5	5,886	3,040	5,556	3,078	-2.0	1,290	1,152	1,412	1,284
5.0	4,997	2,627	4,697	2,773	-2.5	1,650	1,317	1,801	1,483

g. Ground laser designating is authorized from the following observation posts (OP).

(1) OP1 located at PG365977 may lase targets within coordinates PG370980, PG380994, PG390994, PG390970, and PG370970. Lateral firing limit is 25.8 through 136.5 degrees magnetic.

(2) OP2 located at PG381928 may lase targets within coordinates PG390940, PG410960, PG430960, PG430940, and PG390930. Lateral firing limit is 09.8 through 54.5 degrees magnetic.

(3) OP3 located at PG439931 may lase targets within coordinates PG440940, PG450950, PG460940, PG454937, PG456935, PG480940, PG490940, PG490920, and PG450930. Lateral firing limit is 349.5 through 89.5 degrees magnetic.

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(4) OP4 located at PG488915 may lase targets within coordinates PG450950, PG460950, PG480940, PG480920, and PG450942. Lateral firing limit is 275.5 through 317 degrees magnetic.

(5) OP5 located at PG512972 may lase targets within coordinates PG480995, PH490015, PH520000, and PG510980. Lateral firing limit is 278.8 through 351 degrees magnetic.

(6) OP6 located at PH388067 may lase targets within coordinates PH381050, PH400050, PH400030, PH390030, PH380040, and PH380047. Lateral firing limit is 131 through 189.5 degrees magnetic.

(7) OP7 located at PG747769 is not considered safe for laser operations.

(8) OP8 located at PG763869 may lose targets within PG760790, PG760820, PG760810, PG744810, PG741800, PG731800. Lateral firing limit is 155.5 through 179 degrees magnetic.

(9) OP9 located at PH483029 may lase targets within PH470000, PH480020, PH510005, and PH500985. Lateral firing limit is 37.5 through 192.3 degree magnetic. Also, targets within PH440030, PH480030, PH450000, and PH440010 may be lased. Lateral firing limit is 213 through 273 degrees magnetic.

(10) OP Feets located at PG762812 may lase targets within coordinates PG740820, PG760820, PG760801, PG753806, PG740796, PG740801, PG745804, PG745805, PG740803, PG740808, PG745809, PG745813. Lateral firing limit is 177.1 through 332.5 degrees magnetic.

(11) OP Slats located at PH405046 may lase targets within coordinate PH380050, PH398050, PH400049, PH400030, PH390030, and PH380040. Lateral firing limit is 184 through 285 degrees magnetic.

## 7. Threat Emitter

a. Mobile AAA Tactical Radar Threat Generator (TRTG) available with advance notice. (Include in OPAREA request).

b. The TRTG is a mobile, manned J-band EW threat emitter which simulates the ZSU 23-4 Gun Dish radar. Two-way UHF/VHF communications on range frequencies and comprehensive VCR tape debrief provided.

8. Forward Area Refueling Points. FARP locations will be scheduled with Yuma Range Management. Using units must also schedule range times with Yuma Range Scheduling and have exclusive use of the restricted airspace.



a. Location

- |                   |             |
|-------------------|-------------|
| 1) Siphon 8       | - PG 435815 |
| 2) Snake          | - PG 360915 |
| 3) Fire Base Burt | - PG 798835 |
| 4) Bull           | - PG 805595 |
| 5) Amos           | - PG 629680 |

b. In honor of SSgt R.W. Burt, who died 12 Oct 1994 at Fort AP Hill while conducting EOD operations, the Little Mule Farp site has been renamed Fire Base Burt.

9. Lost Communications

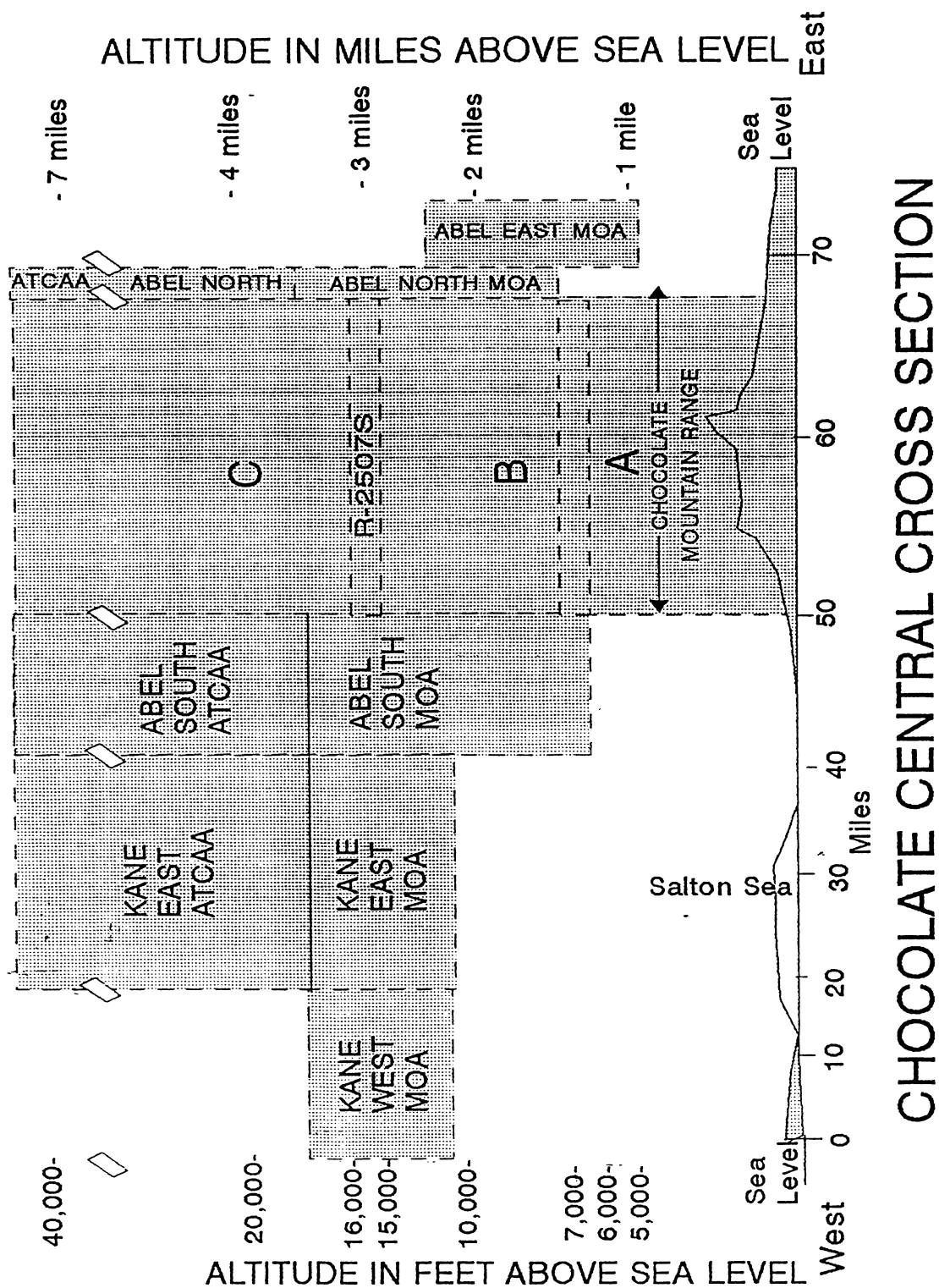
a. Procedures to be used in the event of two-way radio failure are prescribed in FAR 91.127. Should two-way radio failure occur when operating in R-2507 and it is not practical to recover using VFR procedures, the aircraft shall proceed as follows:

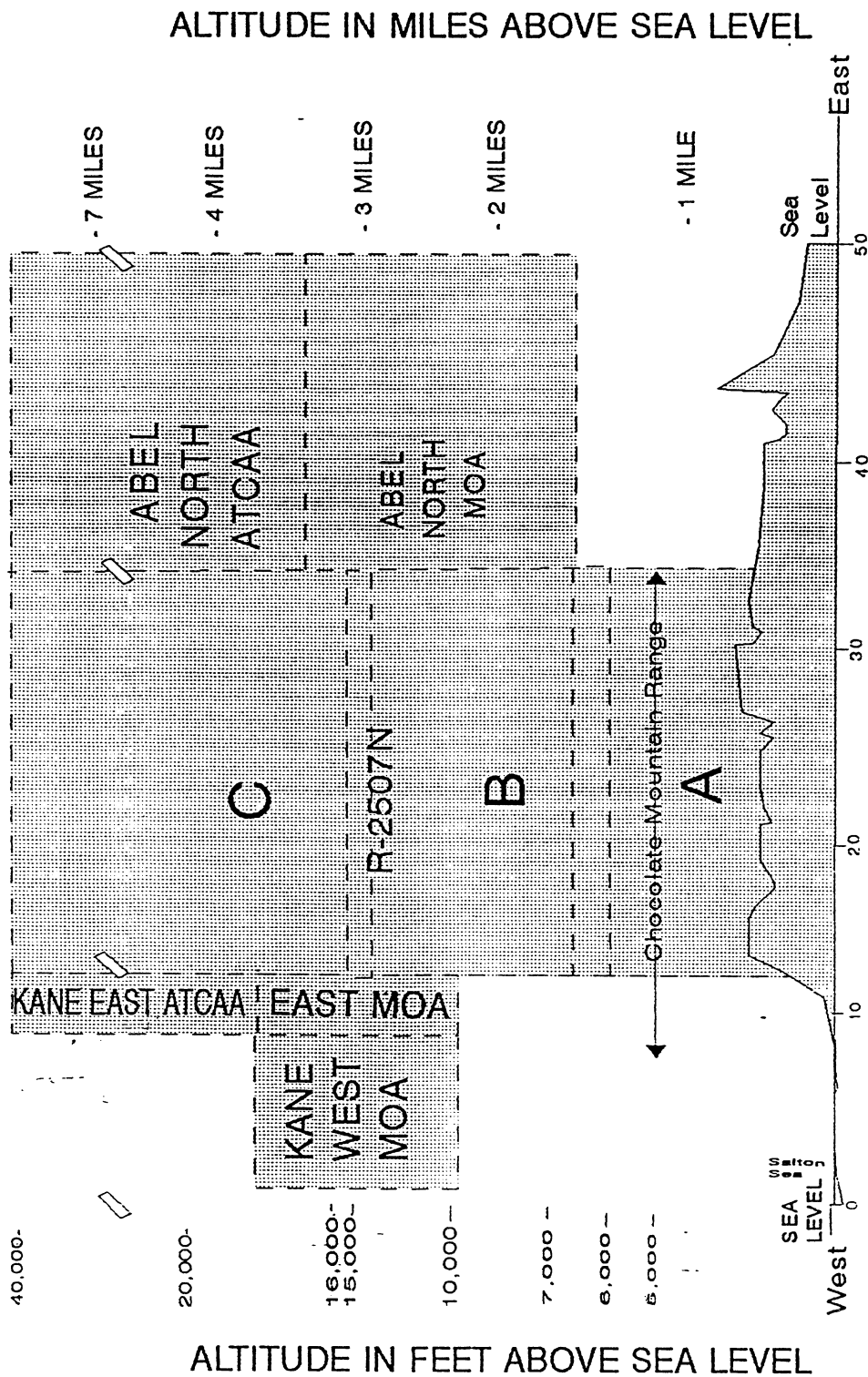
(1) Aircraft shall squawk 7600.

(2) Aircraft shall maintain 17,000 feet MSL and proceed direct to RADOS IAF and execute the HIGH TACAN RUNWAY 21 RIGHT APPROACH or HIGH TACAN RUNWAY 3 LEFT APPROACH.

(3) HELOS. Maintain 5000 feet MSL and proceed to PRISON/GROBE IAF and execute the TACAN RUNWAY 21 RIGHT APPROACH or TACAN RUNWAY 3 LEFT APPROACH.

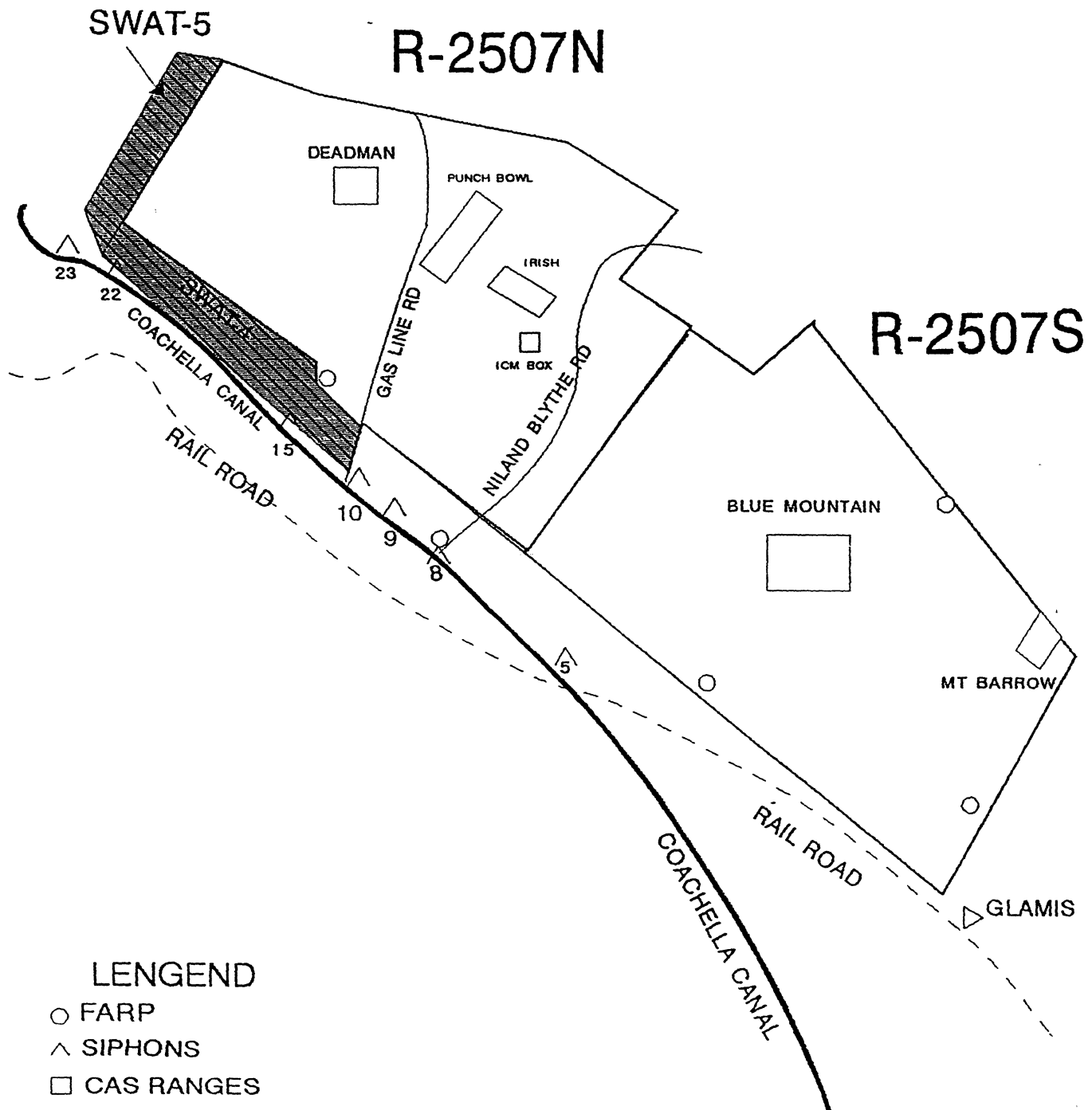
(4) If the duty runway is known, aircraft shall execute the approach to the duty runway. If the duty runway is unknown, execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH.





# CHOCOLATE NORTH CROSS SECTION

## R-2507 N,S CAS OVERLAY



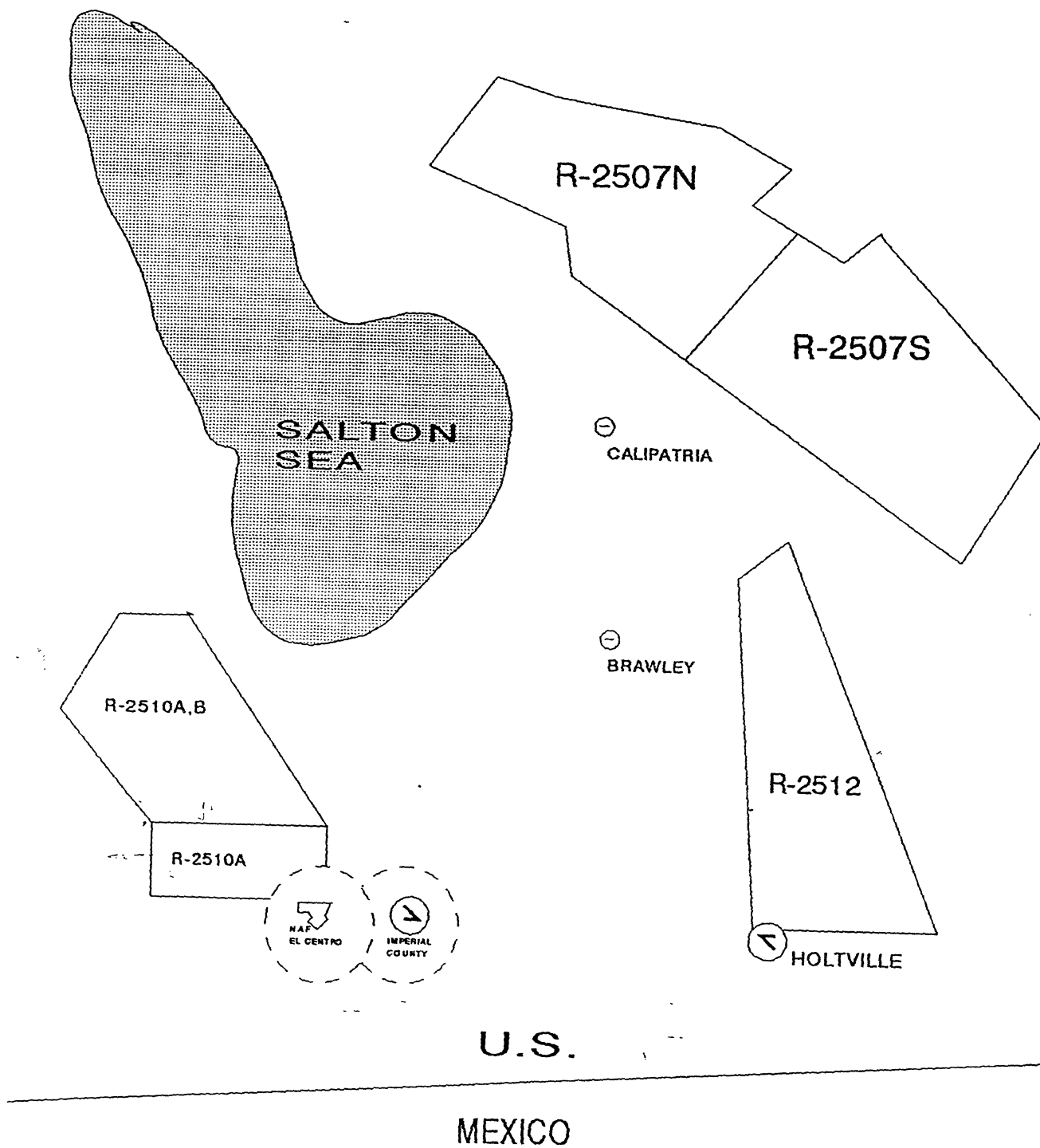
### LENGEND

- FARP
- △ SIPHONS
- CAS RANGES

NSWG-1 BUILDING ADJACENT TO SIPHON 10

SWAT 4 & 5 ARE NOT WITHIN THE RESTRICTED AREA

## AREA VIEW OF RANGES





## UPDATED TARGET COORDINATES FOR SELECT TARGETS

TARGET	GRID	X	Y	LAT	LON
1N	PG489942	648950	3694167	W 115 23 55.55	33 22 35.23
2N	PH468022	646824	3702235	W 115 25 13.06	33 26 58.16
3N	PH393044	639262	3704362	W 115 30 04.68	33 28 10.84
6N	PG457941	645705	3694139	W 115 26 01.11	33 22 35.92
7N	PG470960	647000	3696021	W 115 25 09.90	33 23 36.38
8N	PG392967	639162	3696677	W 115 30 12.84	33 24 01.43
9N	PH449063	644911	3706340	W 115 26 24.75	33 29 12.34
10N	PH449013	644881	3701331	W 115 26 28.82	33 26 29.77
11N	PH442032	644213	3703230	W 115 26 53.59	33 27 31.74
12N	PG385942	638499	3694192	W 115 30 39.87	33 22 41.08
13N	PG502996	650218	3699606	W 115 23 03.23	33 25 31.14
14N	PG474991	647383	3699085	W 115 24 53.28	33 25 15.64
15N	PG487874	648705	3687365	W 115 24 09.07	33 18 54.57
ICM	PG506953	650622	3695258	W 115 22 50.21	33 23 09.80
1S	PG693838	669336	3683839	W 115 10 53.90	33 16 49.16
S	PG682800	668169	3680015	W 115 11 41.55	33 14 45.71
4S	PG731836	673060	3683640	W 115 08 30 14	33 16 40.57
5S	PG738828	673805	3682821	W 115 08 01.92	33 16 13.56
7S	PG782786	678249	3678575	W 115 05 13.23	33 13 53.15
8S	PG725798	672489	3679792	W 115 08 54.84	33 14 36.02
10S	PG762827	676238	3682746	W 115 06 28.00	33 16 09.71
11S	PG763819	676287	3681853	W 115 06 26.71	33 15 40.70
13S	PG717805	671719	3680487	W 115 09 24.10	33 14 59.01
14S	PG771772	677082	3677210	W 115 05 59.26	33 13 09.54
15S	PG735812	673532	3681157	W 115 08 13.61	33 15 19.72
MtBar	PG894709	689424	3670930	W 114 58 07.44	33 09 38.21





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R-2306 (A, B, C, D, & E)

COMMON NAME. Yuma West (R-2306 A, B, C, D, AND E)

LOCATION/BOUNDARIES. Yuma, Arizona

1. R-2306A Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-00-00	114-30-00
33-02-48	114-30-00
33-02-48	114-34-00
33-15-00	114-34-37
33-15-00	114-15-00
south along Highway 95 to	
32-52-30	114-21-00
32-51-45	114-27-50
north along the west bank of the Colorado River	
to point of origin	

2. R-2306B Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-28-00	114-28-00
33-28-00	114-26-25
33-25-15	114-13-00
south along Highway 95 to	
33-15-00	114-15-00
33-15-00	114-30-00
33-26-00	114-30-00
to point of origin	

3. R-2306C Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-15-00	114-35-00
33-23-00	114-35-00
33-26-00	114-30-00
33-15-00	114-30-00
to point of origin	

4. R-2306D Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-28-00	114-26-25
33-28-00	114-13-00

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south along Highway 95 to  
33-25-15 114-13-00  
to point of origin.

5. R-2306E Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-00-00	114-30-00
33-00-00	114-17-00
south along Highway 95 to	
32-52-30	114-20-00
32-51-45	114-27-50
north along the west bank of the Colorado River to	
the point of origin	

DESCRIPTION. Airspace in R-2306.

TYPE EXERCISE/ORDNANCE. Aircraft combat maneuvering, tactical air maneuvers, air intercepts. NO ORDNANCE OR FLARE RELEASE AUTHORIZED.

FLOOR. Surface.

CEILING. R-2306A-FL800  
R-2306B-FL800  
R-2306C-17,000 feet MSL  
R-2306D-FL230  
R-2306E-FL800

USAGE LIMITATIONS. VFR only. Yuma Proving Ground (YPG) has scheduling priority.

RESOURCE MANAGER. CO, Yuma Proving Ground (YPG)

SCHEDULING AUTHORITY. CO, Yuma Proving Ground (YPG)

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN 951-2214/2215

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into restricted area and prior to exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area:

a. Checking into

- (1) Callsign, number, and type of aircraft.
- (2) Squadron.

ENCLOSURE (10)

(3) Restricted area scheduled.

(4) Tactical frequency used while in the area.

(5) Notify Yuma Range Control if requesting IFR clearance to exit the area.

(6) Ordnance on Board.

b. Exiting. Callsign.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes, the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN 951-2214/2215.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.

2. Speedletter (MSG/Fax) 30 days minimum.

3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS

1. R-2307 airspace is to the South.

2. R-2308 and R-2309 airspace is to the East.

APPLICABLE DIRECTIVES. Letter of Agreement between CO, YPG and CO, MCAS Yuma.

REMARKS/SPECIAL INSTRUCTIONS

1. YPG has priority in scheduling for additional airspace as their requirements dictate.

2. YPG shall release any airspace which is not in use back to MCAS Yuma upon completion of each mission when more than 30 minutes are available prior to the succeeding mission.

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3. MCAS Yuma shall have the authority to deny requests for airspace or request airspace be returned to their control for existing emergency conditions and/or severe weather conditions only.

4. Lost Communications

a. Procedures to be used in the event of two-way radio failure are prescribed in FAR 91.127. Should two-way radio failure occur when operating in R-2306 and it is not practical to recover using VFR procedures, the aircraft shall proceed as follows:

(1) Aircraft shall squawk 7600.

(2) Aircraft shall maintain 16,000 feet MSL and proceed direct to RADOS IAF and execute the HIGH TACAN RUNWAY 21 RIGHT or HIGH TACAN RUNWAY 3 LEFT APPROACH.

(3) If the duty runway is known, aircraft shall execute the approach to the duty runway. If the duty runway is unknown, execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH.





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R-2307

COMMON NAME. Yuma (R-2307)

LOCATION/BOUNDARIES. Yuma, Arizona

R-2307 Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-00-00	114-17-20
33-00-00	114-11-00
33-02-00	113-56-30
33-02-00	113-37-20
32-50-00	113-37-20
32-50-50	113-50-10
32-52-00	114-00-00
32-52-05	114-21-00
32-52-30	114-21-00
to point of origin	

DESCRIPTION. Airspace in R-2307

TYPE EXERCISE/ORDNANCE. Aircraft combat maneuvering, tactical air maneuvers, air intercepts, all weather flight training. NO ORDNANCE OR FLARES AUTHORIZED.

FLOOR. 8,000 feet MSL.

CEILING. Unlimited.

USAGE LIMITATIONS. VFR only. Yuma Proving Ground (YPG) has scheduling priority.

RESOURCE MANAGER. CO, Yuma Proving Ground (YPG).

SCHEDULING AUTHORITY. CO, Yuma Proving Ground (YPG).

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into restricted area and prior to exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area:

a. Checking into

(1) Callsign, number, and type of aircraft.

ENCLOSURE (11)

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(2) Squadron.

(3) Restricted area scheduled.

(4) Tactical frequency used while in area.

(5) Notify Yuma Range Control if requesting IFR clearance to exit area.

(6) Ordnance on Board.

b. Exiting. Callsign, number, and type of aircraft.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN 951-2214/2215.

#### SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.

2. Speedletter (MSG/Fax) 30 days minimum.

3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS. R-2308 and R-2309 are to the North. R-2306 is to the West and Northwest.

APPLICABLE DIRECTIVES. Letter of Agreement between CO, YPG and CO, MCAS Yuma.

#### REMARKS/SPECIAL INSTRUCTIONS

1. YPG has priority in scheduling for additional airspace as the requirements dictate.

2. YPG shall release any airspace which is not in use back to MCAS Yuma upon completion of each mission when more than 30 minutes is available prior to the succeeding mission.

3. MCAS Yuma shall have the authority to deny requests for airspace

ENCLOSURE (11)



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or request airspace be returned to their control for existing  
emergency conditions and/or severe weather conditions only.

ENCLOSURE (11)



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R-2308 (A, B, & C)

COMMON NAME. Yuma, East (R-2308 A, B, and C)

LOCATION/BOUNDARIES. Yuma, Arizona

1. R-2308A Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-25-15	114-13-00
33-20-11	113-47-42
33-17-30	113-39-04
33-02-00	113-45-00
33-02-00	113-45-00
33-02-00	114-56-30
33-00-00	114-11-00
33-00-00	114-17-20
north along Highway 95 to point of origin	

2. R-2308B Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-02-00	113-45-00
33-18-00	113-45-00
33-18-00	113-39-00
33-02-00	113-39-00

3. R-2308C Boundaries

<u>Latitude North</u>	<u>Longitude West</u>
33-28-00	114-13-00
33-20-11	113-47-42
33-25-15	114-13-00
north along Highway 95 to point of origin	

DESCRIPTION. Airspace in R-2308.

TYPE EXERCISE/ORDNANCE. Aircraft combat maneuvering, tactical air maneuvers, air intercepts, all weather flight training. NO ORDNANCE OR FLARES AUTHORIZED.

	<u>R-2308 A</u>	<u>R-2308 B</u>	<u>R-2308 C</u>
<u>FLOOR.</u>	1,500 feet AGL	Surface	1,500 feet AGL
<u>CEILING.</u>	FL800	FL800	FL230

USAGE LIMITATIONS. VFR only.

ENCLOSURE (12)

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RESOURCE MANAGER. CO, Yuma Proving Ground (YPG).

SCHEDULING AUTHORITY. CO, Yuma Proving Ground (YPG)

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into restricted area and prior to exiting the restricted area on 274.0 or 124.15. The following information will be passed when checking into/exiting the restricted area:

a. Checking into

- (1) Callsign, number, and type of aircraft.
- (2) Squadron.
- (3) Restricted area scheduled.
- (4) Tactical frequency used while in area.
- (5) Notify Yuma Range Control if requesting IFR clearance to exit area.
- (6) Ordnance on Board.

b. Exiting. Callsign, number, and type of aircraft.

2. Scheduled restricted area user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the restricted area block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for restricted area, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN 951-2214/2215.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Real time scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

ENCLOSURE (12)

OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS

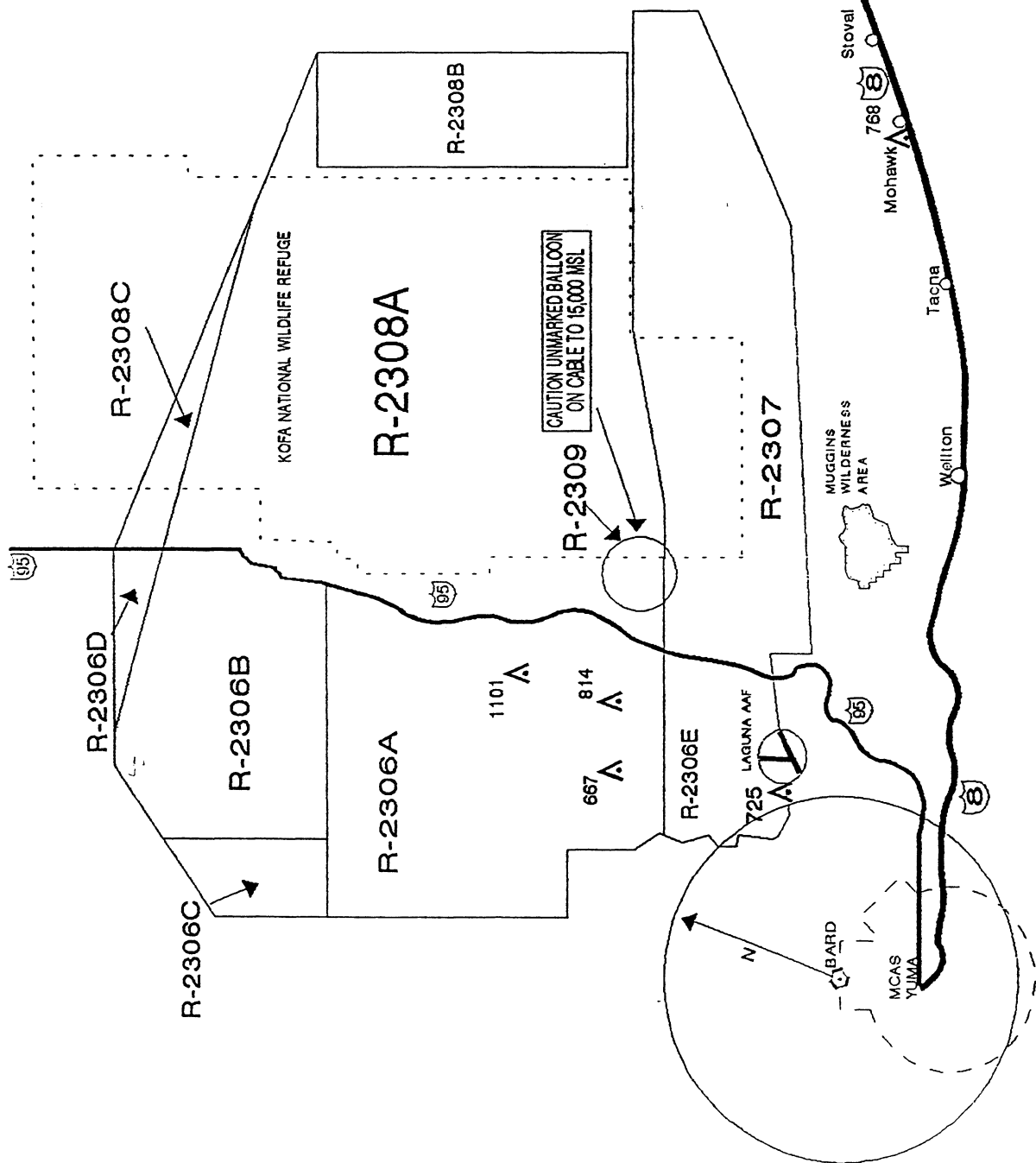
1. R-2306 airspace is to the west.
2. R-2307 and R-2309 airspace is to the south.

APPLICABLE DIRECTIVES. Letter of Agreement between CO, YPG, and CO, MCAS, Yuma.

REMARKS/SPECIAL INSTRUCTIONS

1. YPG has priority in scheduling for additional airspace as the requirements dictate.
2. YPG shall release any airspace which is not in use back to MCAS Yuma upon completion of each mission when more than 30 minutes is available prior to the succeeding mission.
3. MCAS Yuma shall have the authority to deny requests for airspace or request airspace be returned to their control for existing emergency conditions and/or severe weather conditions only.
4. Lost Communications
  - a. Procedures to be used in the event of two-way radio failure are prescribed in FAR 91.127. Should two-way radio failure occur when operating in R-2308 and it is not practical to recover using VFR procedures, the aircraft shall proceed as follows:
    - (1) Aircraft shall squawk 7600.
    - (2) Aircraft shall maintain 16,000 feet MSL and proceed direct to RADOS IAF and execute the HIGH TACAN RUNWAY 21 RIGHT or HIGH TACAN RUNWAY 3 LEFT APPROACH.
    - (3) If the duty runway is known, aircraft shall execute the approach to the duty runway. If the duty runway is unknown, execute the HIGH/LOW TACAN RUNWAY 21 RIGHT APPROACH.

# R-2306/2307/2308/2309



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R-2309

COMMON NAME. R-2309

LOCATION/BOUNDARIES. Yuma, Arizona.

Latitude North

Longitude West

33-00-58

114-14-31

2 1/2 NM radius from point of latitude and longitude

DESCRIPTION. Airspace in R-2309.

TYPE EXERCISE/ORDNANCE. Used by U.S. Customs Service for deploying a tethered Aerostat-borne radar system. NO ORDNANCE, CHAFF OR FLARES AUTHORIZED.

FLOOR. Surface.

CEILING. 15,000 feet MSL.

USAGE LIMITATIONS. Continuous.

RESOURCE MANAGER. CO, Yuma Proving Ground (YPG).

REMARKS/SPECIAL INSTRUCTIONS. Non-schedulable airspace.





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R-2510 (A & B)

COMMON NAME. R-2510 A and B

LOCATION/BOUNDARIES

Latitude North

Longitude West

R-2510A

32-59-35

115-43-33

32-55-35

115-40-18

32-54-04

115-40-18

thence counterclockwise along the arc of a 4.3 mile  
radius circle at

32-49-45

115-40-18

32-50-05

115-45-23

32-50-05

115-55-03

32-55-50

115-55-03

33-01-20

116-02-18

33-06-35

115-56-53

33-06-35

115-51-15

to point of beginning.

R-2510B

32-55-35

115-40-18

32-55-50

115-55-03

33-01-20

116-02-18

33-06-35

115-56-53

33-06-35

115-51-15

32-59-35

115-43-33

to point of beginning.

Target 101

32-55-48N

115-43-45W

300 degree radial at 15 NM from Imperial TACAN. R-2510  
east of a line from 33-05-30N/115-58-00W to 32-51-15N/  
11-40-45W to 32-50-00N/115-50-45W and south of a line  
extending from 33-00-00N/115-55-03W to 33-00-00/  
115-44-00W.

Target 103

32-51-49N

115-53-02W

270 degree radial at 30 NM from Imperial VORTAC. R-2510  
west of a line from 33-05-30N/115-58-00W to 32-51-15N/  
115-40-45W to 32-50-00N/115-50-45W.

ENCLOSURE (14)

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Camelot Drop Zone

32-52-20N 115-47-49W

Superstition Drop Zone

32-58-21N 115-47-44W

Bullhead Drop Zone

32-52-05N 115-45-59W

Green Spot

33-06-45 116-00-30W

COMMON NAME. Target 101 (R-2510)(Shade Tree)

DESCRIPTION

1. TARGET 101 contains a main target bullseye with electric lights and WISS scoring for bombing and rocket firing, a scored strafing target (20MM), a BDU target for recoverable ordnance only, and an MLT track.
2. Main target elevation is 105 feet MSL.
3. Run-in headings to the main target are 112/292 degrees magnetic. BDU target is 5 1/4 miles NW of main target on the same run-in headings and the strafe target run-in heading is 300 degrees magnetic only. In regard to the MLT track, see Remarks/Special Instructions.
4. The main target is a 40 foot diameter bullseye with 75, 100, 300, and 2000 feet concentric rings.

TYPE EXERCISE/ORDNANCE

1. Inert only. MK76, BDU-48, 2.75 rockets and 20MM are authorized. Larger inerts are not authorized. BDUs or items that require recovery will be dropped on the BDU target 5 1/4 miles NW of main target.
2. Delivery (all types) laydown, loft, dive, pop-up, over-the-shoulder, etc., are permissible.
3. MK45, LUU-2 flares are authorized. Flares are not to be dropped if ground wind exceeds 20 knots. See Remarks/Special Instructions for reporting procedures on dud flares.

USAGE LIMITATIONS

1. Inert only (MK76, BDU-48), (No larger inerts authorized).

ENCLOSURE (14)

2. VFR only.
3. Operating hours for R-2510A are Monday-Saturday, 0700-2300 local. Available at other times by special request with at least 24 hours prior notice. Operating hours for R-2510B are 0700-2300 local time weekends when activated 24 hours in advance.
4. Air refueling is not authorized.
5. Chaff is not authorized.

	<u>R-2510A</u>	<u>R-2510B</u>
<u>FLOOR.</u>	Surface	15,000 feet MSL
<u>CEILING.</u>	15,000 feet MSL	FL400

RESOURCE MANAGER. CO, NAF El Centro, DSN 958-8601/8665.

SCHEDULING AUTHORITY. FACSAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC), DSN 951-2214/2215.

COMMUNICATIONS

1. Aircraft will contact "SHADETREE" on Primary 283.2 MHz or Secondary 277.2 MHz at the "green spot" for clearance on the range and provide:
  - a. Callsign(s).
  - b. Squadron and aircraft type.
  - c. Target desired.
  - d. Type ordnance and delivery.
2. Aircraft will report the BARREL Initial Point (IP) and when clear of area. Aircraft must report when departing R-2510.
3. Aircraft must have an operable receiver/transmitter to enter or drop ordnance on the range.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATAC Range Scheduling. During normal range hours scheduling can be

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done immediately on a range available basis.

4. Scheduling request must contain the following information:

- a. Type of target(s) desired (main target, BDU, strafe, or mobile land target).
- b. Date(s) and time(s) the target required in local time.
- c. Type of delivery.
- d. If "Really Ready", so state.

OVERLAPPING, INCLUDED/ADJACENT AREA, TARGETS. TARGET 103 is located west of a LINE 33-05-30N/115-58-00W to 32-51-15N/115-50-45W.

REMARKS/SPECIAL INSTRUCTIONS

1. General

a. Remain well clear of TARGET 103, west of the railroad tracks. Aircraft are cautioned not to exit through the TARGET 103 area. Pilots are further cautioned to remain well clear of the V-66 airway which lies to the south of R-2510.

b. Aircraft using the desert test range target complex will maintain Visual Meteorological Conditions at all times.

c. "Really Ready" missions have priority over all other aircraft in the pattern. "Really Ready" aircraft will call five minutes prior to entering the restricted area, giving line-up time on target, type weapon, and type delivery. Lead aircraft in the pattern will ensure all aircraft vacate the range for one delivery from the "Really Ready" aircraft. Positive two-way communication is necessary for the "Really Ready" aircraft to be cleared on the target.

d. Aircraft will remain south of 33 degrees north unless cleared by "SHADETREE".

e. Except for extreme cases, request BDU drops on SHADETREE/TGT 101 (R-2510) be scheduled Monday through Friday, with last drop on Friday being completed NLT 1200 local time. Proper recovery and control of BDUs, as required by COMNAVAIRPACINST 8130.3 (series) cannot be accomplished on weekends without expenditure of large amounts of civilian overtime.

2. Target Positions

a. Main Target

(1) Location. 32-55-48N/115-43-45W. Elevation: 105 feet.

ENCLOSURE (14)

(2) Targets consists of a 20 foot bullseye surrounded by four concentric rings of 75, 150, 300 and 2,000 feet Radii. Run-in markers are 1,000 yards apart. BARREL IP to center bull is 51,631 feet.

(3) Right or left-hand pattern. Run-in headings are 112/292 degrees Magnetic.

(4) Distance from bull to radar reflector is 7,915 feet at 112 degrees magnetic. Radar reflector location is 32-55-01N/115-42-31W.

(5) "GREEN SPOT" is north of R-2510 on the 296 Radial at 32 NM from Imperial VORTAC 115.9, Channel 106.

b. Strafing Target

(1) Location. 4,000 feet southeast of the center of the main target. Elevation: approximately 100 feet.

(2) Consists of a mound approximately 12 feet high with a foul line 2,000 feet from the target. Run-in heading for the strafing target is 300 degrees magnetic.

(3) Left-hand pattern.

(4) Guns will be on "SAFE" when off targets; guns may be "ARMED" only when the aircraft is established on the run-in heading of 300 degrees magnetic. Aircraft may make an initial jink to the left after firing is complete to avoid any frag pattern.

(5) Strafing target is for fixed wing aircraft only.

c. Mobile Land Target (MLT)

(1) Location. 5,000 feet due east of main target. Elevation: approximately 100 feet. There is a 230 feet microwave tower southeast of the track area near the control building.

(2) Targets consists of a moving target on a generally northwest - southeast track, which is 4,000 feet long and 500 feet wide.

(3) Right or left-hand pattern. Run-in is approximately 296 degrees Magnetic.

(4) Aircraft requiring a long run-in to the target (A-6) may use 112 degrees magnetic with a right or left hand turn provided, run-in on MLT is aborted when traffic is present on the road south of the MLT track. Aircraft shall commence an immediate turn after ordnance drop.

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(5) Inert ordnance MK76 and BDU-48 only. No strafing or rockets. Normal delivery of ordnance will be made when bombing the MLT. Pilot must maintain the same separation of aircraft and target required when dropping live MK82.

d. Bomb Dummy Unit (BDU) Target. (Recoverable ordnance only).

(1) Location is 5 1/4 miles NW of main target on the same run-in line. Run-in heading is 112 degrees Magnetic. BARREL IP to center of BDU target is 23,765 feet. BARREL IP position is 33-00-53N/115-41-43W and BDU target is 32-58-36N/115-48-06W.

(2) Target consists of a 20 feet bullseye with 75, 150 and 300 feet radius rings.

(3) Target to be used only for inert ordnance requiring recovery. NO MK76, BDU-48, 2.75 ROCKETS OR STRAFING on BDU target.

(4) Laydown, loft, and over-the-shoulder BDU drops are permissible.

(5) The following information is required of each aircraft prior to drop: BDU type, aircraft modex, weapon serial number and type delivery.

(6) Drop results will be reported IAW COMNAVAIRPACINST 8130.3 (series).

(7) "Really Ready" BDU drops must be scheduled due to recovery requirements.

(8) Normal use of target is Monday - Friday with last drop on Friday to be completed NLT 1200 local time.

3. Safety

a. The use of live ordnance other than spotting charges is prohibited.

b. Runs on the MLT shall be aborted if a red rotating beacon appears on the moving target.

c. Pilots are cautioned that the run-in line for TARGET 101 and TARGET 103 both originate from the "GREEN SPOT". Pilots should ensure they are on the correct run-in line for their respective targets.

d. Pilots are cautioned to clear the target area prior to any ordnance deliveries. Off-road and recreational vehicles have often been observed on the target areas in spite of warning signs and security patrols.

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e. Aircraft experiencing lost communication shall immediately depart R-2510 unless joined by a wingman with an operable transceiver.

f. Strafing is authorized only on the strafe target as outlined.

g. Aircraft will not fly at or over the control building. Low flight, except during normal weapons deliveries while on run-in headings, is not authorized.

4. Night illumination devices that fail to fire will be reported during the mission to either "SHADETREE" target 283.2 MHz or NAF El Centro Tower 360.2 MHz. A complete report including ground location of duds in reference to the target, type, device, total number of devices dropped, and total number failing to fire will be sent via priority message to NAF El Centro by the target user to arrive NLT 0730 local time the morning following the mission. Unexpended ordnance is a safety hazard and efforts will be made to recover that material.

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COMMON NAME. BULLHEAD Drop Zone (R-2510)

LOCATION/BOUNDARIES. 1,000 yard radius centered at 32-52-05N/  
115-45-59W (see TARGET 101).

TYPE EXERCISE/ORDNANCE. Live and equipment parachute drops.

USAGE LIMITATIONS. No ordnance drops authorized.

FLOOR. Surface.

CEILING. R-2510A Surface to 15,000 feet MSL.  
R-2510B 15,000 feet MSL to FL400.

RESOURCE MANAGER. CO, NAF El Centro. DSN: 958-8238/8665.

SCHEDULING AUTHORITY. FACS FAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma. DSN: 951-2214/2215.

COMMUNICATIONS. "SHADETREE" - Primary 283.2 MHz/Secondary 277.2 MHz.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 30 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) two weeks minimum/90 days max.
3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.



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COMMON NAME. TARGET 103 (R-2510) (LOOM LOBBY)

LOCATION/BOUNDARIES

Latitude North

Longitude West

R-2510A

32-59-35	115-43-33
32-55-35	115-40-18
32-54-04	115-40-18
thence counterclockwise along the arc of a 4.3 mile radius circle at	
32-49-45	115-40-18
32-50-05	115-45-23
32-50-05	115-55-03
32-55-50	115-55-03
33-01-20	116-02-18
33-06-35	115-56-53
33-06-35	115-51-15
to point of beginning	

R-2510B

32-55-35	115-40-18
32-55-50	115-55-03
33-01-20	116-02-18
33-06-35	115-56-53
33-06-35	115-51-15
32-59-35	115-43-33
to point of beginning	

Target 101

32-55-48N	115-43-45W
-----------	------------

300 degree radial at 15 NM from Imperial TACAN. R-2510 east of a line from 33-05-30N/115-58-00W to 32-51-15N/11-40-45W to 32-50-00N/115-50-45W and south of a line extending from 33-00-00N/115-55-03W to 33-00-00/115-44-00W

Target 103

32-51-49N	115-53-02W
-----------	------------

270 degree radial at 30 NM from Imperial VORTAC. R-2510 west of a line from 33-05-30N/115-58-00W to 32-51-15N/115-40-45W to 32-50-00N/115-50-45W

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Camelot Drop Zone

32-52-20N 115-47-49W

Superstition Drop Zone

32-58-21N 115-47-44W

Bullhead Drop Zone

32-52-05N 115-45-59W

Green Spot

33-06-45 116-00-30W

DESCRIPTION

1. TARGET 103 contains a scored strafe target and a remotely controlled/scored conventional bombing/rocket target. The target consists of a 30 foot diameter bullseye mound with concentric circles of 75, 150, and 300 feet with electric lights for night bombing. Bombs and rockets are scored by a Weapons Impact Scoring System (WISS). Impact information is provided during the flight and printed information is available after the flight.
2. Target elevation is 130 feet MSL.
3. Bomb target run-in heading is 143 degrees magnetic.
4. Radar trap is 1,520 feet past bullseye.
5. Strafe target run-in line is 170 degrees magnetic.

TYPE EXERCISE/ORDNANCE

1. Inert only. MK76, MK106, 2.75 rockets and 20MM are authorized. Larger inerts, BDUs or items that require recovery are not authorized.
2. Delivery (all types) laydown, loft, dive, pop-up, over-the-shoulder, etc., are permissible.
3. LOOM LOBBY, (Target 103), is considered safe for most airborne laser operations (see Remarks/Special instructions).
4. Night illumination devices such as MK45 flares are not authorized. Use Target 101 for flare drops.

USAGE LIMITATIONS

1. Inert only. Run-in heading is 143 degrees magnetic only for bomb

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target (prior approval required for change to this heading).. The strafe target heading is 170 degrees magnetic with lefthand pattern only.

2. VFR only. Operating hours for R-2510A are Monday-Saturday, 0700-2300 local. Available at other times by special request with at least 24 hours prior notice. Operating hours for R-2510B are 0700-2300 local time weekends when activated 24 hours in advance.

3. Air refueling is not authorized.

	<u>R-2510A</u>	<u>R-2510B</u>
<u>FLOOR.</u>	Surface	15,000 feet MSL
<u>CEILING.</u>	15,000 feet MSL	FL400

RESOURCE MANAGER. CO, NAF El Centro. DSN 958-8238/8665.

SCHEDULING AUTHORITY. FACSAC San Diego

SCHEDULING ACTIVITY. CO, MCAS Yuma, (ATC). DSN 951-2214/2215.

#### COMMUNICATIONS

1. Aircraft will contact "LOOM LOBBY" on Primary 305.0 MHz or Secondary 277.2 MHz at the "green spot" for clearance onto the range and provide:

- Call sign(s).
- Squadron and aircraft type.
- Target desired.
- Type ordnance and delivery.

2. If no contact with "LOOM LOBBY", attempt to contact "SHADETREE" on Primary 383.2 MHz or Secondary 277.2 MHz.

3. For EMERGENCIES, during unmanned periods, contact NAF El Centro Tower.

4. Aircraft will report the initial point (arrow) and when clear of the target. Aircraft must report when departing R-2510.

5. Aircraft must have at least an operable transmitter/receiver to operate or drop ordnance on the range.

#### SCHEDULING DOCUMENT

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.

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2. Speedletter (MSG/Fax) 30 days minimum.
3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.
4. Scheduling request must contain the following information:
  - a. Type of target(s) desired (main target, BDU, strafe, or mobile land target).
  - b. Date(s) and time(s) the target required in local time.
  - c. Type of delivery; type of ordnance; type laser
  - d. If "Really Ready", so state.

OVERLAPPING, INCLUDED/ADJACENT AREA, TARGETS. TARGET 101 (SHADETREE) (32-55-48N/115-43-45W) which includes CAMELOT Drop Zone (32-52-20N/115-47-49W), BULLHEAD Drop Zone (32-52-05N/115-47-59W), and SUPERSTITION Drop Zone (32-58-21NH/115-47-44W). Live parachute jumps are conducted in the south part of R-2510 at BULLHEAD and CAMELOT Drop Zones.

REMARKS/SPECIAL INSTRUCTIONS

1. General

- a. A bladed run-in line exists with an arrow at its initial point and is marked in 5,000 feet increments beginning at 35,000 feet. A burned trailer is at 40,800 feet on the line.
- b. Remain well clear of the R-2510 (TARGET 101). DO NOT exit through R-2510. Aircraft are further cautioned to remain well clear of V-66 airway which lies directly to the south of the target area.
- c. A 60-second interval is required for any type special weapons delivery. A 30-second interval is required for conventional weapons.
- d. "Really Ready" missions have priority over all other aircraft in the pattern. "Really Ready" aircraft will call five minutes prior to entering the restricted area, giving line-up, time on target, type weapon, and type delivery. Lead aircraft in the pattern will ensure all aircraft vacate the range for one delivery from the "Really Ready" aircraft to be cleared on target.
- e. Pilots are cautioned to clear the target area prior to any ordnance deliveries. Off-road and recreational vehicles have been observed on the target area in spite of warning signs and security patrols.

ENCLOSURE (14)

2. Flight Pattern. As required by mission, (Run-in heading is 143 degrees magnetic, pull off target to the west immediately (southern border of R-2510 is only two miles south of the target) and remain west of the railroad tracks when on target. (See chart this section.) Lefthand patterns are authorized on approval. Care must be taken when making left-hand pulls to stay clear of TARGET 101 traffic.

3. Strafing Target (Scored by Microwave Remote)

a. Location is northwest of main target near the 5,000 feet marker. Elevation is approximately 130 feet MSL.

b. Consists of mound 12 to 15 feet high with a foul line 2,000 feet from the target mound. Final run-in heading for strafing is 170 degrees magnetic with a left or righthand pattern.

c. Safety requires one cold run prior to commencement of a live run. There is a railroad track NE of the target: pilots shall not strafe while trains are in vicinity of the north end of the strafing run-in line.

d. Use of spotter aircraft is recommended.

e. Guns will be on "SAFE" when off target; guns may be "ARMED" only when the aircraft is established on the run-in line heading of 170 degrees magnetic. Aircraft may make an initial jink after firing is complete to avoid any frag pattern.

4. Laser Operations/Restrictions. Target 103 is considered safe for most airborne laser operations provided the following:

a. The lasing aircraft is at or above 940 feet MSL and on a heading of 158 True/143 Magnetic for LOOM LOBBY,

b. A fly-over is made to ensure there are no personnel on the range, the adjacent road, and the adjacent railroad tracks.

c. A log of duration and date of all laser firing is maintained by NAS El Centro Range personnel. Aircrew must call "Gadget on/off" during laser operations.

d. All glass and flat highly polished material are removed from the target area.

e. Lasing shall cease if the operator is dissatisfied with target tracking or if personnel enter the range.

f. The target must be identified under the crosshairs of the scope or operator's monitor prior to lasing and lasing will cease when track is lost.

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g. No personnel shall be allowed to view the laser or the reflected laser beam within the beampath or its associated buffer (5 miliradians).

h. Eye protections with an optical density of 6 OD or greater at 1064 nanometers, must be worn by personnel required on the range.

i. No aircraft with unprotected personnel may be within 5 NM of the target or within 10 degrees of the potential laser line-of-sight.

j. Aircrews will NOT operate laser systems when ground personnel are within 2.5 NM of the target or within 10 degrees of the potential laser line-of-sight. Eye protection is not available at this target, therefore AIRCREWS MUST TREAT ANY PERSONNEL WITHIN THE ABOVE AREA CONSTRAINTS AS UNAUTHORIZED.

k. Target 103 has a Laser Evaluation System (LES). This unit is mounted in the north scoring tower facing up range. It may be flown at by flying the run in line 1/2 mile to the east. When the LES is illuminated by laser energy it will put out a tone on 305.0 MHz the target frequency.

l. A Laser Designator/Simulator System (LDSS) can be made available for use at target 103. Three days notice is required. The system will be taken to the north tower and pointed at the main target. It's designed to be used as a laser designator for aircraft that do not have an onboard designator.

m. Laser reports shall be furnished to MCAS Yuma Range Management as delineated in paragraph 8 of this order.

## 5. Safety

a. The use of live ordnance other than spotting charges is prohibited.

b. Pilots are cautioned that run-in lines for TARGET 101 and TARGET 103 both originate from the "green spot". Pilots should ensure they are on the correct run-in line.

c. Pilots must check the target with care prior to any ordnance deliveries. Off-road, recreational vehicles or illegal aliens on foot may be in the area.

d. Aircraft without communications will depart R-2510 immediately unless joined by a wingman with an operable transceiver.

e. Strafing is authorized only on or at the strafe target as it is outlined.

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f. Pilots should beware of the microwave tower, 190 feet AGL, located one mile east of LOOMLOBBY.

g. Users may request a copy of NAF El Centro Instruction 3750.4 (Laser Safety Target 103) by calling DSN: 958-8618/8665.

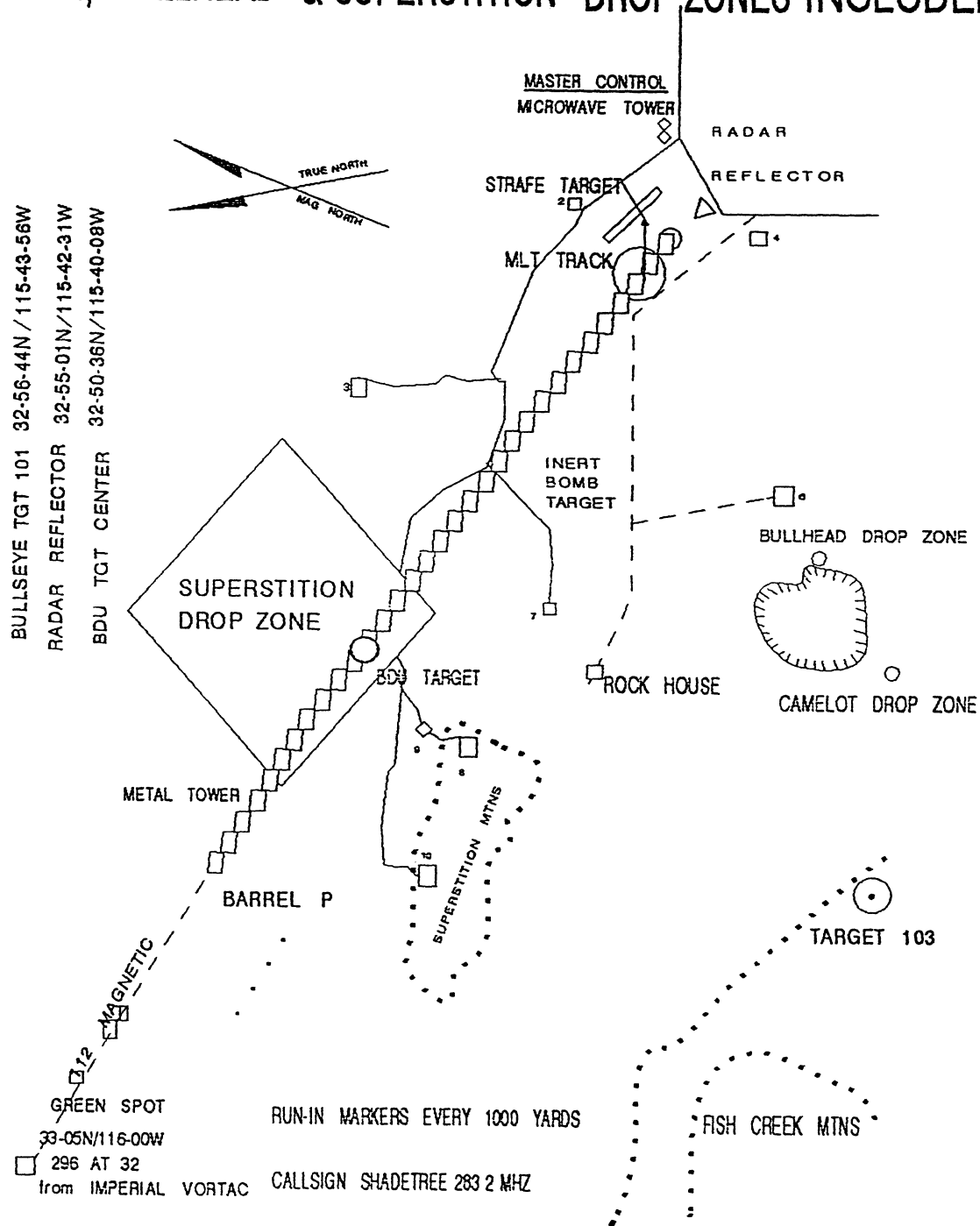
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# R-2510

## TARGET 101 (SHADE TREE)

### CAMELOT, BULLHEAD & SUPERSTITION DROP ZONES INCLUDED

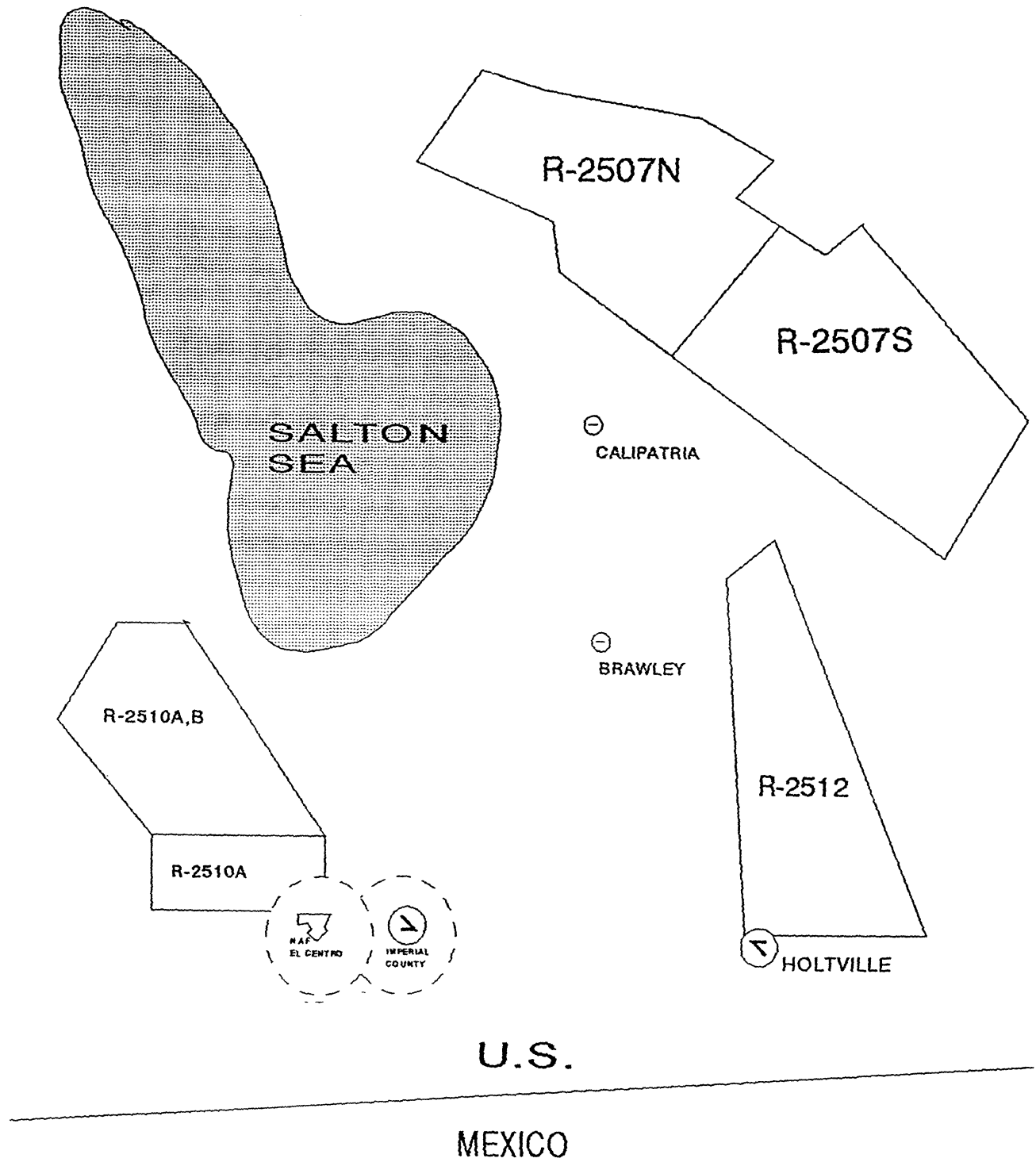


ENCLOSURE (14)





## AREA VIEW OF RANGES



R-2512

COMMON NAME. R-2512

LOCATION/BOUNDARIES. Holtville, California.

R-2512

<u>LATITUDE NORTH</u>	<u>LONGITUDE WEST</u>
33-05-00	115-17-30
33-00-00	115-13-30
32-51-00	115-05-30
32-51-00	115-17-00
32-58-00	115-17-30
33-05-00	115-20-00
To point of origin	

Target 68. (Inkey Barley) 32-56-30N/115-13-39W. 285 degree radial at 38 NM from YUMA TACAN.

Target 95. (Kitty Baggage) 33-02-29N/115-17-02W. 290 degree radial at 42 NM from YUMA TACAN.

DESCRIPTION

1. Two unmanned conventional weapon air-to-ground rocket, bomb, and strafing targets consisting of a 20 foot diameter bullseye with concentric circles of 75, 150, and 300 feet radii.
2. Target elevation is 90 feet MSL.

TYPE EXERCISE/ORDNANCE

1. Inert ordnance only.
2. Air-to-ground rockets, bombs, and strafing. MK76, BDU-48, 2.75 inch rockets and 20MM. Larger inerts not authorized.
3. Larger inerts are not authorized.
4. Night illumination devices such as MK45 flares are not authorized.
5. Freefall and static line parachute operations may be conducted south of the bullseye (Target 68) within R-2512.

FLOOR/CEILING. Surface to 23,000 feet MSL.

USAGE LIMITATIONS

1. VFR only.
2. Air refueling is not authorized.

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RESOURCE MANAGER. CO, NAF El Centro, DSN 958-8601/8665.  
Commercial 760-339-8601

SCHEDULING AUTHORITY. FACSAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC), DSN 951-2214/2215.

COMMUNICATIONS

1. Contact Yuma Range Control on 274.0 MHz for clearance onto/off R-2512.
2. Target 68: contact "INKY BARLEY" on 264.2 MHz prior to entry.
3. Target 95: contact "KITTY BAGGAGE" on 265.8 MHz prior to entry.
4. Aircraft must have at least one operable receiver to enter or drop ordnance on the range.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.
4. Specify Target 68/95 on Requests.

OVERLAPPING, INCLUDED/ADJACENT AREAS, TARGETS

1. Target 68 is located in R-2512 just south of 33-00-00N.
2. Target 95 is located in R-2512 just north of 33-00-00N.
3. R-2507 is located to the north.
4. ABEL South MOA is located to the north.
5. ABEL East MOA is located to the east.
6. ABEL Bravo MOA is located to the south-west.
7. Holtville airstrip is located immediately south of R-2512.

REMARKS/SPECIAL INSTRUCTIONS

1. Target 68: run-in headings of 073/253 degrees magnetic with a south recovery for bomb/rocket runs. Run-in heading of 090 degrees

ENCLOSURE (15)

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magnetic with a north recovery for strafing.

2. Target 95: run-in heading of 180 degrees magnetic with either a left or right recovery.

3. Each unit utilizing the range is required to send a utilization report via message or NAVGRAM to the Scheduling Activity within three working days of the end of each month summarizing range use. Negative reports not required.

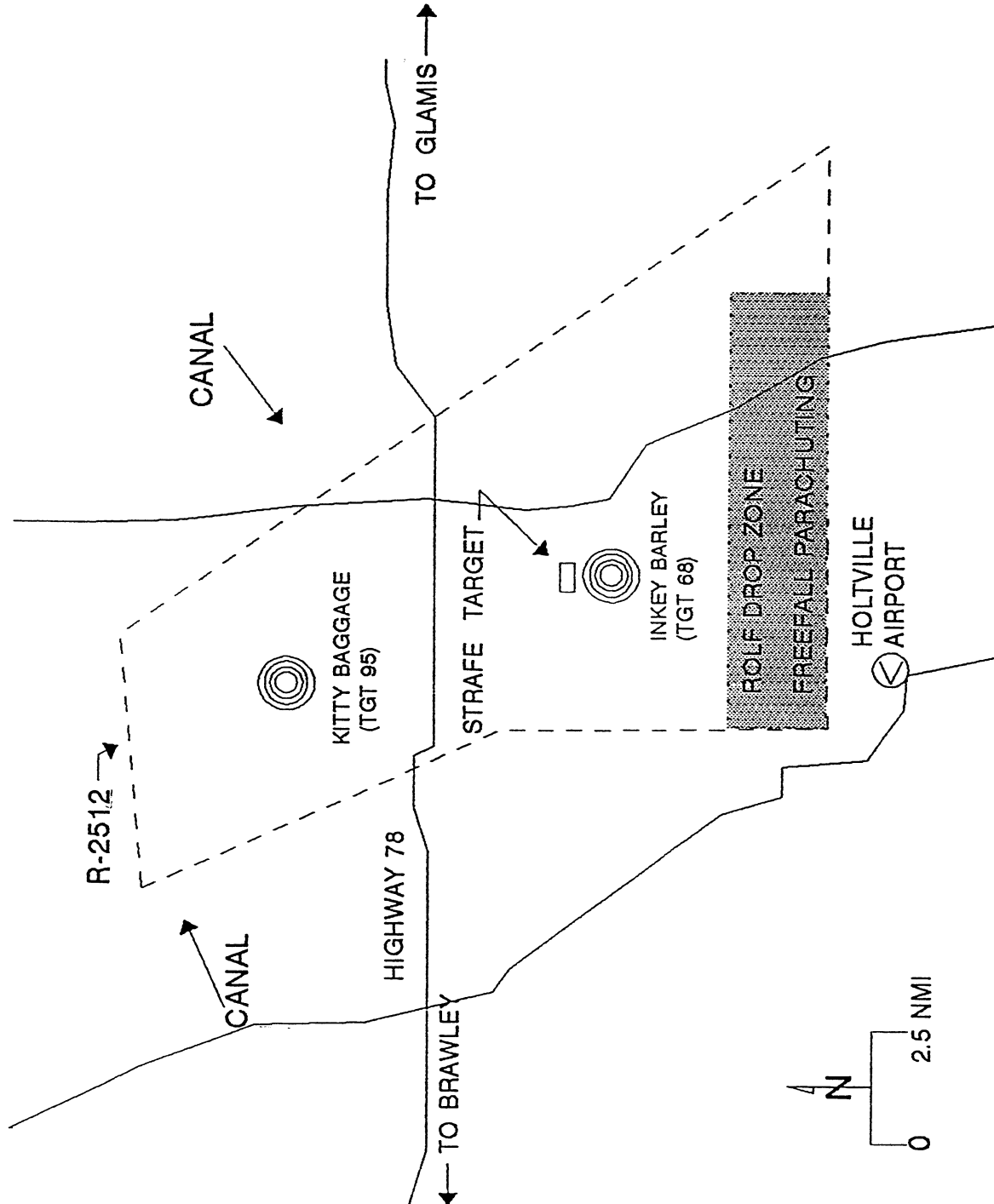
4. PARACHUTE OPERATIONS. The using unit is responsible for publishing the appropriate NOTAM when the Holtville Airstrip is used in conjunction with Parachute Operations.

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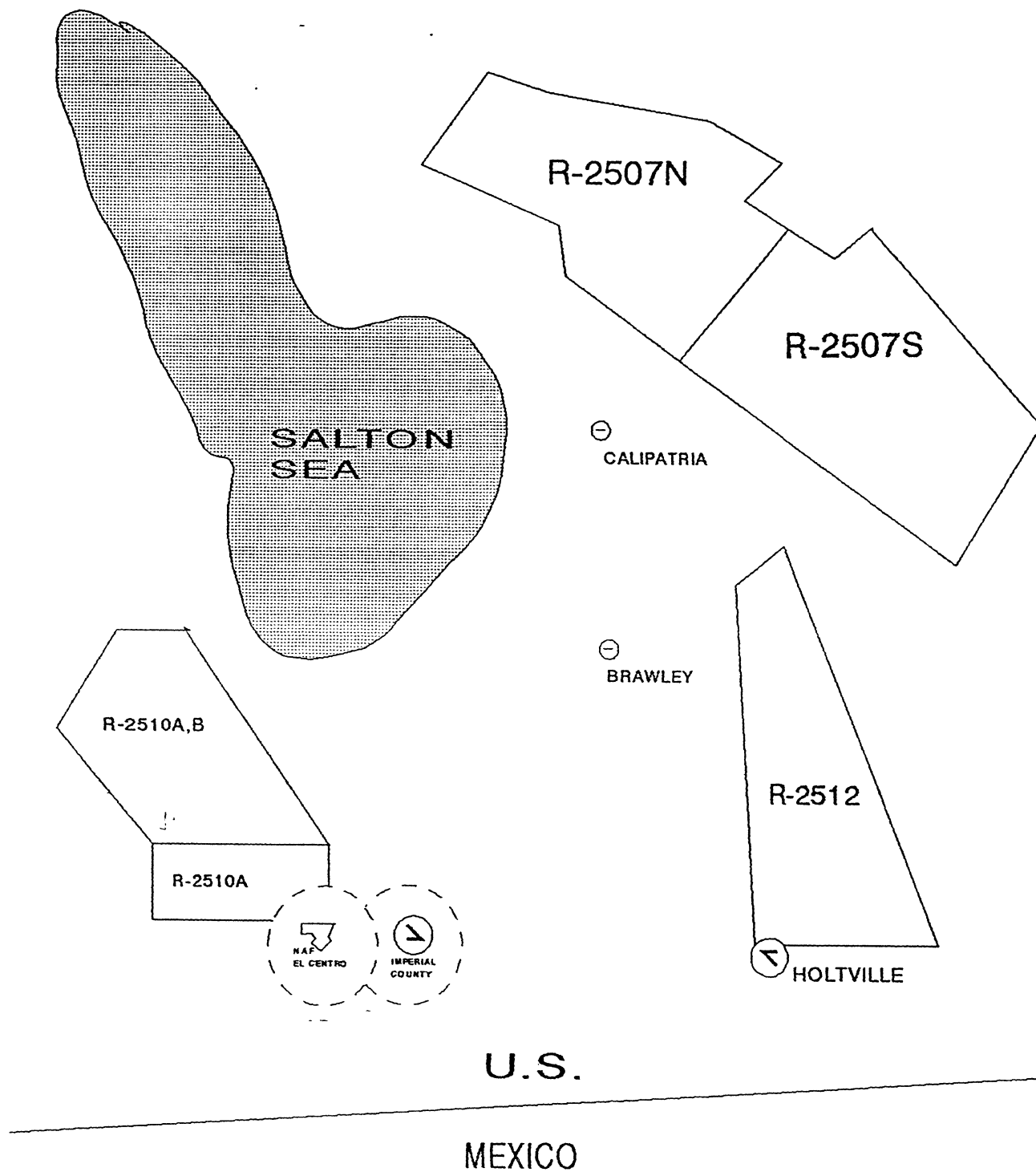
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# R-2512

## TARGET 95 AND 68



## AREA VIEW OF RANGES







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**ABEL NORTH/SOUTH/BRAVO/EAST MOA/ATCAA's**

COMMON NAME. ABEL MOA/ATCAA

LOCATION BOUNDARIES. Salton Sea, California, excluding R-2507 and R-2512.

Latitude North

Longitude West

**ABEL NORTH:**

33-32-40	115-33-50
33-31-00	115-04-00
33-15-30	114-55-30
33-08-45	114-56-40
33-01-00	115-06-00
33-21-30	115-32-55
33-23-40	115-33-20
33-28-30	115-42-10
to point of origin	

**ABEL SOUTH**

33-21-30	115-32-55
33-01-00	115-06-50
32-57-00	115-10-50
32-56-30	115-27-00
to point of origin	

**ABEL BRAVO**

32-56-30	115-27-00
35-57-00	115-10-50
32-51-00	115-05-30
32-51-00	115-26-00
to point of origin	

**ABEL EAST**

33-15-00	114-55-40
33-03-00	114-45-00
32-50-00	114-56-00
33-01-00	114-06-00
33-09-00	114-57-00
to point of origin	

DESCRIPTION. MOA/ATCAA is designated for military training activities. MOA's exist below Class A airspace. ATCAA's exist in Class A airspace.

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TYPE EXERCISE/ORDNANCE. Air combat training, maneuvering and air re-fueling. No ordnance is authorized.

	<u>ABEL NORTH/SOUTH/BRAVO</u>	<u>ABEL EAST</u>
<u>FLOOR.</u>	7,000 feet MSL	5,000 feet MSL
<u>CEILING.</u>	FL400	12,999 feet MSL

USAGE LIMITATIONS. Continuous.

RESOURCE MANAGER. CO, MCAS Yuma.

SCHEDULING AUTHORITY. FACS FAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

COMMUNICATIONS

1. Aircraft must contact Yuma Range Control for clearance into and exiting the MOA on 274.0 or 124.15. The following information will be passed prior to entering/exiting the restricted area.

a. Checking into

- (1) Callsign, number, and type of aircraft.
- (2) Squadron.
- (3) MOA Scheduled.
- (4) Tactical frequency used while in area.

(5) Notify Yuma Range Control if requesting IFR clearance to exit area.

b. Exiting. Callsign, number, and type of aircraft.

2. Scheduled user has a 15-minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes, the area block time will be canceled unless prior coordination has been made with Yuma Range Control.

3. ARTCC/tactical frequency as directed.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.

2. Speedletter (MSG/Fax) 30 days minimum.

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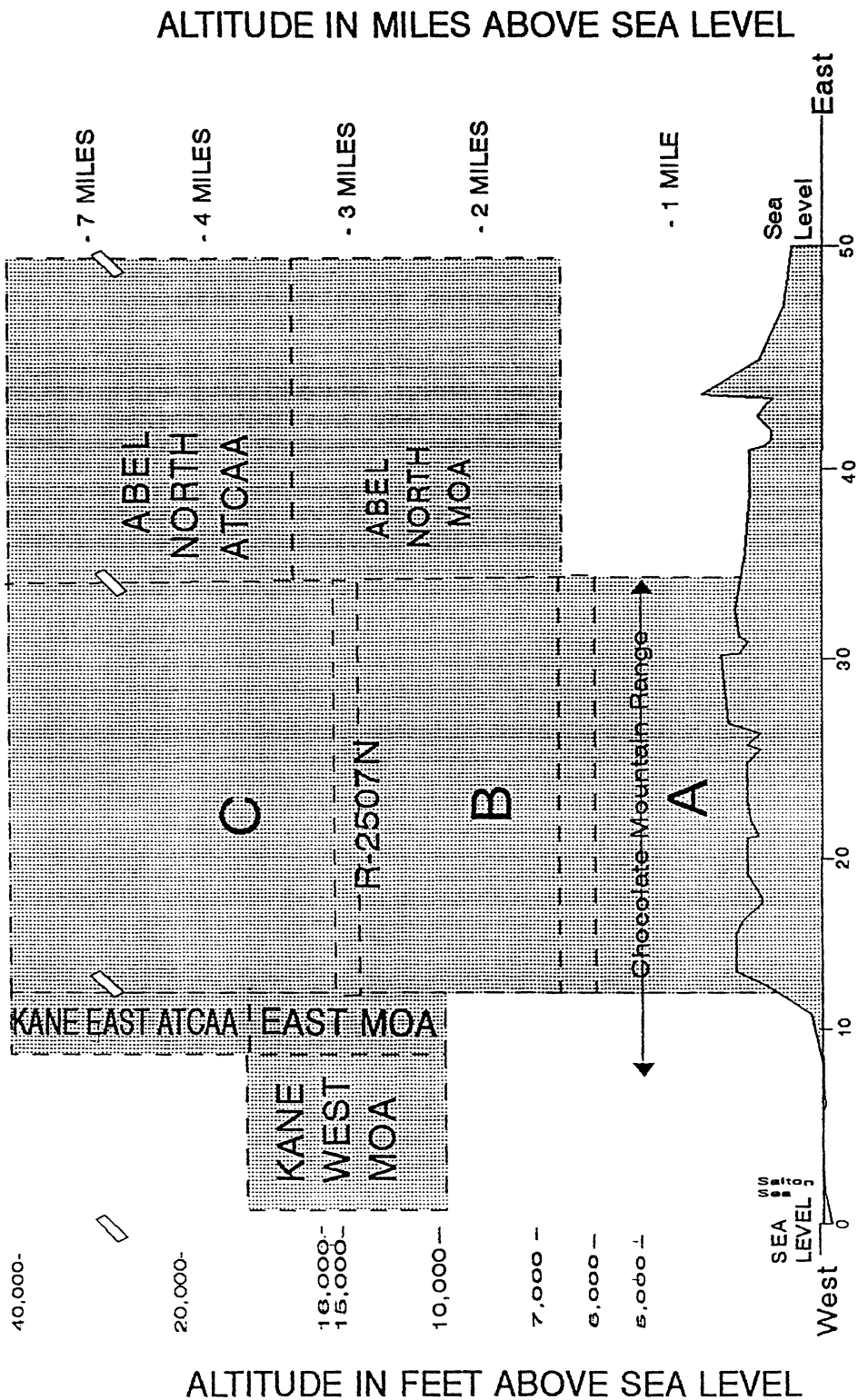
3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

APPLICABLE DIRECTIVES. Letter of Agreement between Los Angeles ARTCC, CO MCAS Yuma, and CO, FACS FAC San Diego.

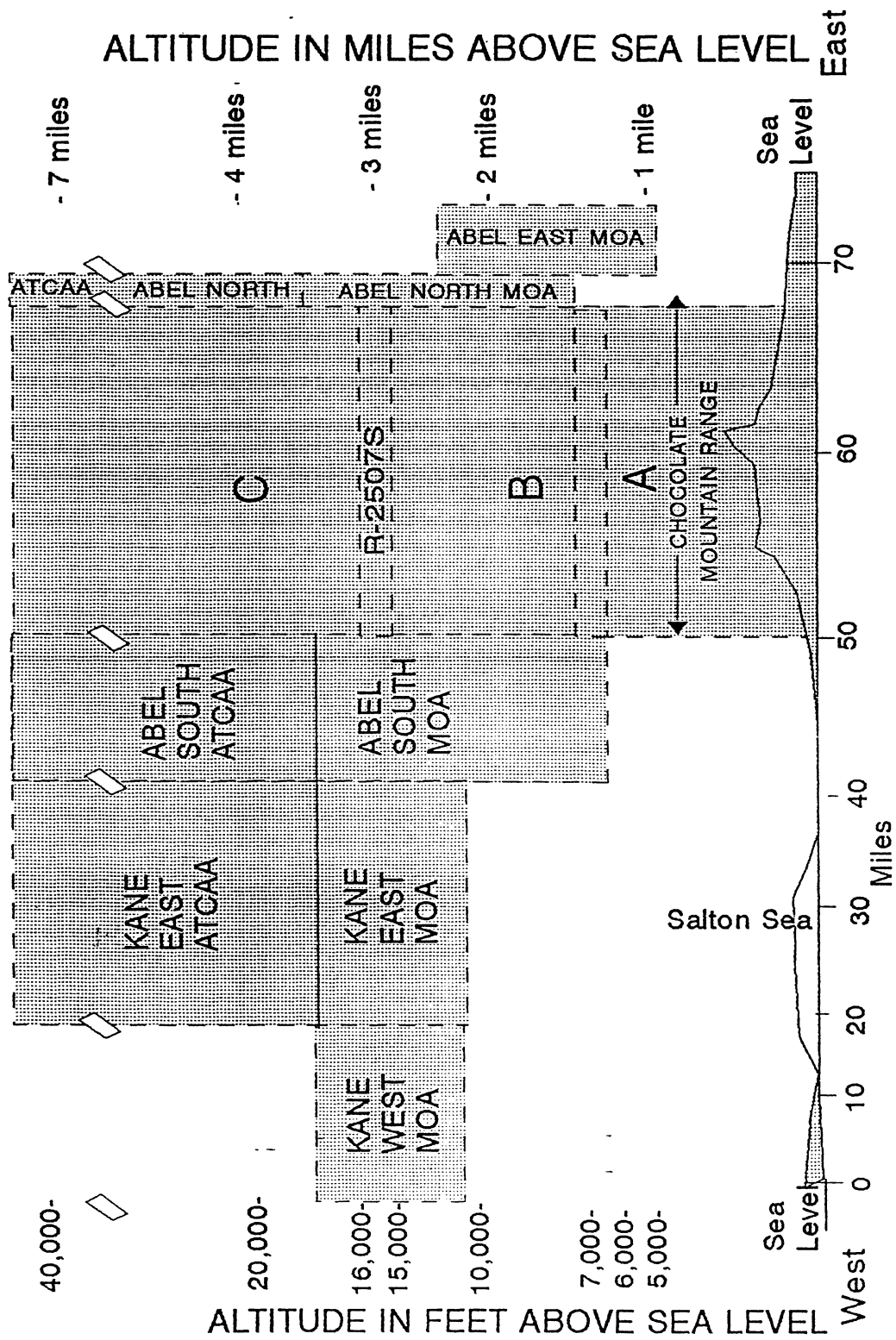
REMARKS/SPECIAL INSTRUCTIONS

1. ABEL MOA excludes the airspace within R-2512.
2. If scheduled user will not be able to use scheduled block time for area. They shall contact Yuma Range Scheduling with cancellation as soon as possible so that airspace may be rescheduled or released to FAA. DSN: 951-2214/2215.

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# CHOCOLATE NORTH CROSS SECTION



# CHOCOLATE CENTRAL CROSS SECTION



DOME MOA/ATCAA

COMMON NAME. Dome MOA/ATCAA

LOCATION BOUNDARIES

Latitude North

Longitude South

32-39-40

114-45-20

32-39-40

114-28-30

32-35-00

114-28-30

32-35-00

114-31-00

32-30-00

114-32-00

32-30-33

114-28-30

32-23-45

114-28-30

THENCE ALONG THE USA/MEXICAN BORDER TO POINT OF  
ORIGIN

DESCRIPTION. MOA/ATCAA is designated for military training activities. MOA exists below Class A Airspace. ATCAA exists in Class A Airspace.

TYPE EXERCISE/ORDNANCE. Air combat training, maneuvering and air refueling. No ordnance is authorized.

FLOOR. 6,000 feet MSL.

CEILING. FL800.

USAGE LIMITATIONS. Continuous.

RESOURCE MANAGER. CO, MCAS Yuma (Fleet Services).

SCHEDULING AUTHORITY. FACS FAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN: 951-2214/2215.

COMMUNICATIONS

1. Aircraft must contact "Yuma Range Control" for clearance into MOA/ATCAA and prior to entering/exiting on 274.0 or 124.15. The following information will be required when checking into/exiting the MOA/ATCAA:

a. Checking into

(1) Callsign, number, and type of aircraft.

(2) Squadron.

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(3) Restricted area scheduled.

(4) Tactical frequency used while in area.

(5) Notify Yuma Range Control if requesting IFR clearance to exit area.

(6) Ordnance on Board.

b. Exiting. Callsign, number, and type of aircraft.

2. Scheduled MOA/ATCAA user has a 15 minute window from start of scheduled time for aircraft to contact Yuma Range Control for clearance into area. After 15 minutes the MOA/ATCAA block time will be canceled unless prior coordination has been made with Yuma Range Control or Yuma Range Scheduling.

3. If scheduled user will not be able to use scheduled block time for MOA/ATCAA, they shall contact Yuma Range Scheduling with cancellation as soon as possible. DSN: 951-2214/2215.

4. Tactical frequency assigned.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.

2. Speedletter (MSG/Fax) 30 days minimum.

3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

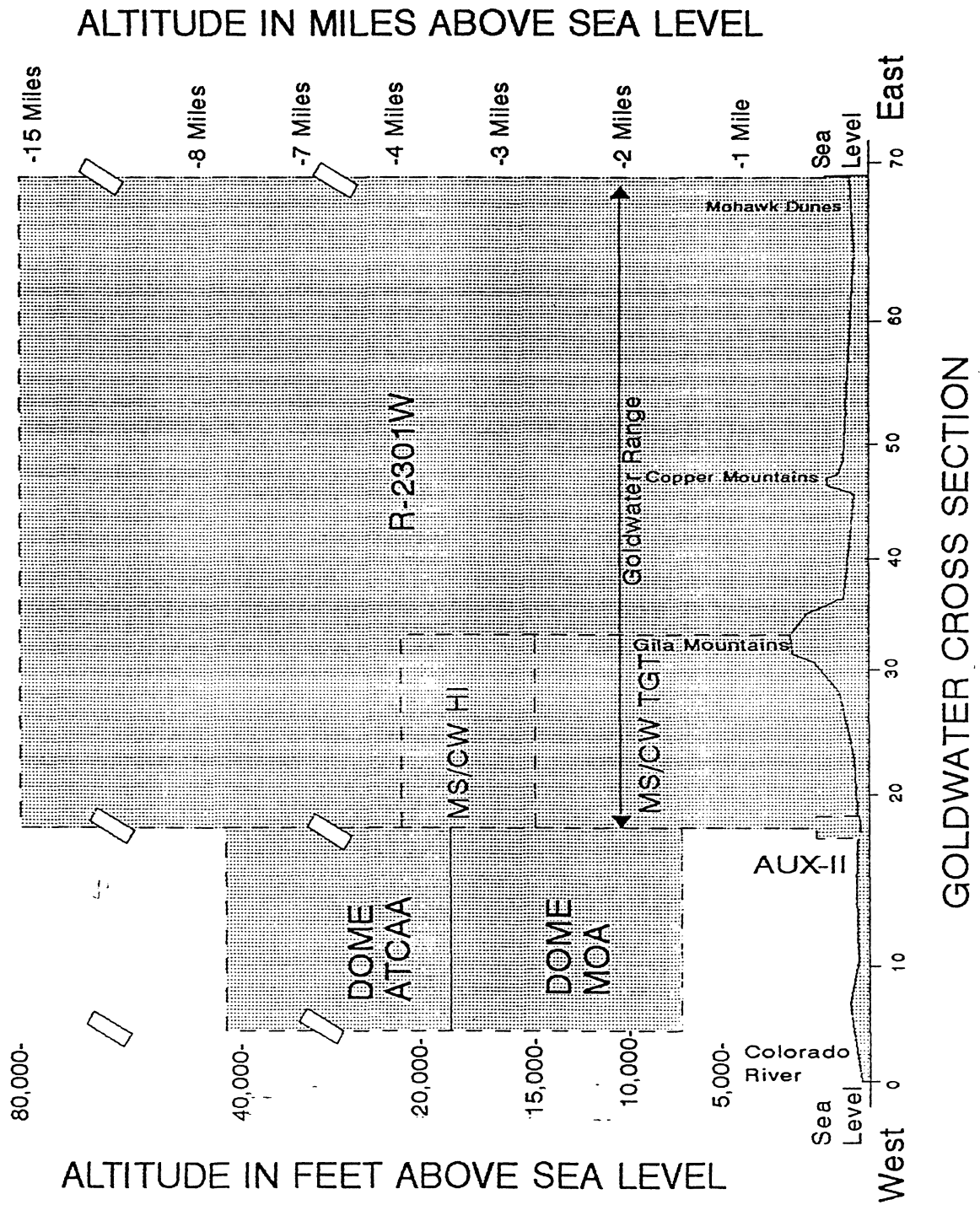
APPLICABLE DIRECTIVES. Letter of Agreement between Los Angeles ARTCC and CO, MCAS Yuma.

REMARKS/SPECIAL INSTRUCTIONS

1. Dome MOA/ATCAA excludes airspace east of the western border R-2301W.

2. If flight is canceled, notify MCAS Yuma (ATC) so that the airspace may be rescheduled or released to FAA.







KANE EAST/WEST/SOUTH MOA/ATCAA's

COMMON NAME. Kane MOA/ATCAA

LOCATION BOUNDARIES. Salton Sea, California, excluding R-2510

Latitude North

Longitude West

KANE WEST

33-28-30	115-42-10
33-23-00	115-51-00
33-07-00	115-51-00
32-56-00	115-40-00
32-53-45	115-40-15
32-50-28	115-45-10
counterclockwise along the arc of 5 mile radius circle centered	
32-49-20	115-40-15
32-50-00	116-01-00
32-57-00	116-10-00
33-18-00	116-10-00
33-28-30	115-51-30
To point of origin	

KANE EAST

33-28-30	115-42-10
33-23-30	115-51-20
32-07-00	115-51-00
32-56-00	115-40-00
33-56-30	115-27-00
33-23-40	115-33-20
To point of origin	

KANE SOUTH

32-56-00	115-40-00
32-56-30	115-27-00
32-51-00	115-26-00
32-50-28	115-45-10
thence clockwise along the arc of a 5 mile radius circle centered at	
32-49-20	115-40-15
32-53-45	115-40-15
to the point of origin	

DESCRIPTION. MOA/ATCAA is designated for military training activities. MOA's exists below Class A airspace. ATCAA's exists in Class A airspace.

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TYPE EXERCISE/ORDNANCE. ACM, tactical air maneuvers, air intercepts, all-weather flight training, and formation flying. No ordnance authorized.

FLOOR. 10,000 feet MSL (IMPERIAL Altimeter).

CEILING. KANE WEST - 15,000 feet MSL.  
KANE EAST - FL400.  
KANE SOUTH - FL180.

USAGE LIMITATIONS. No ordnance.

RESOURCE MANAGER. CO, NAF El Centro. DSN: 958-8238/8665.

SCHEDULING AUTHORITY. FACSAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC). DSN 951-2214/2215.

COMMUNICATIONS. ARTCC/tactical frequency as assigned.

1. For clearance into Kane East contact Yuma Range Control on 274.0/124.15.
2. For clearance into Kane West contact Los Angeles Center on 291.7/128.6

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done immediately on a range available basis.

APPLICABLE DIRECTIVES. Letter of Agreement between Los Angeles ARTCC and major commands.

REMARKS/SPECIAL INSTRUCTIONS.

1. General
  - a. KANE MOA excludes the airspace within R-2510.
  - b. KANE MOA is depicted on United States Flight Information Publication Enroute Low Altitude-U.S. Chart L-3/L-4.
  - c. Area five mile radius around a point 4 NM northwest of Westmoreland (IPL 325R/13 DME; JLI 178 R/47 DME; BZA 292 R/56 DME),

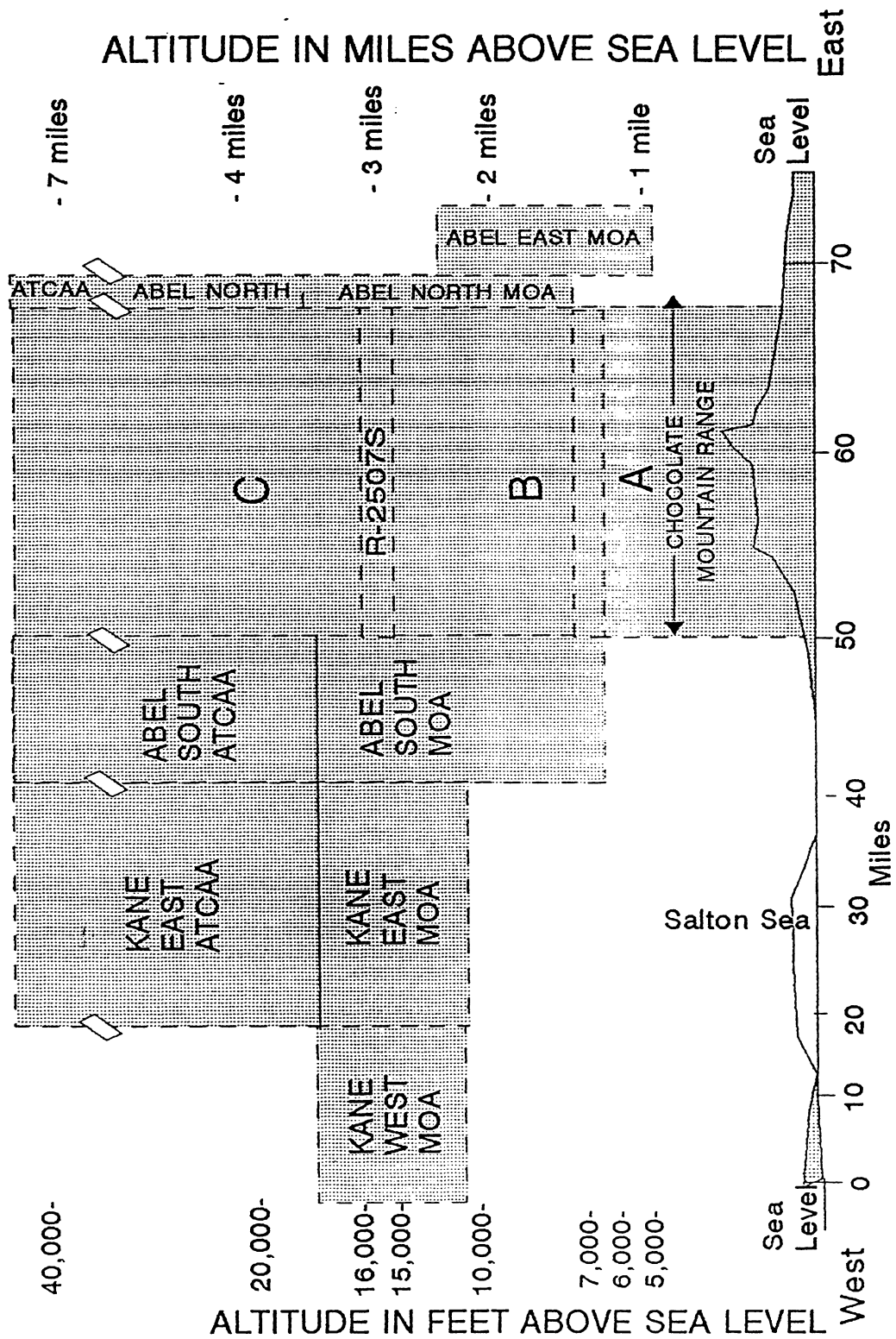
ENCLOSURE (18)

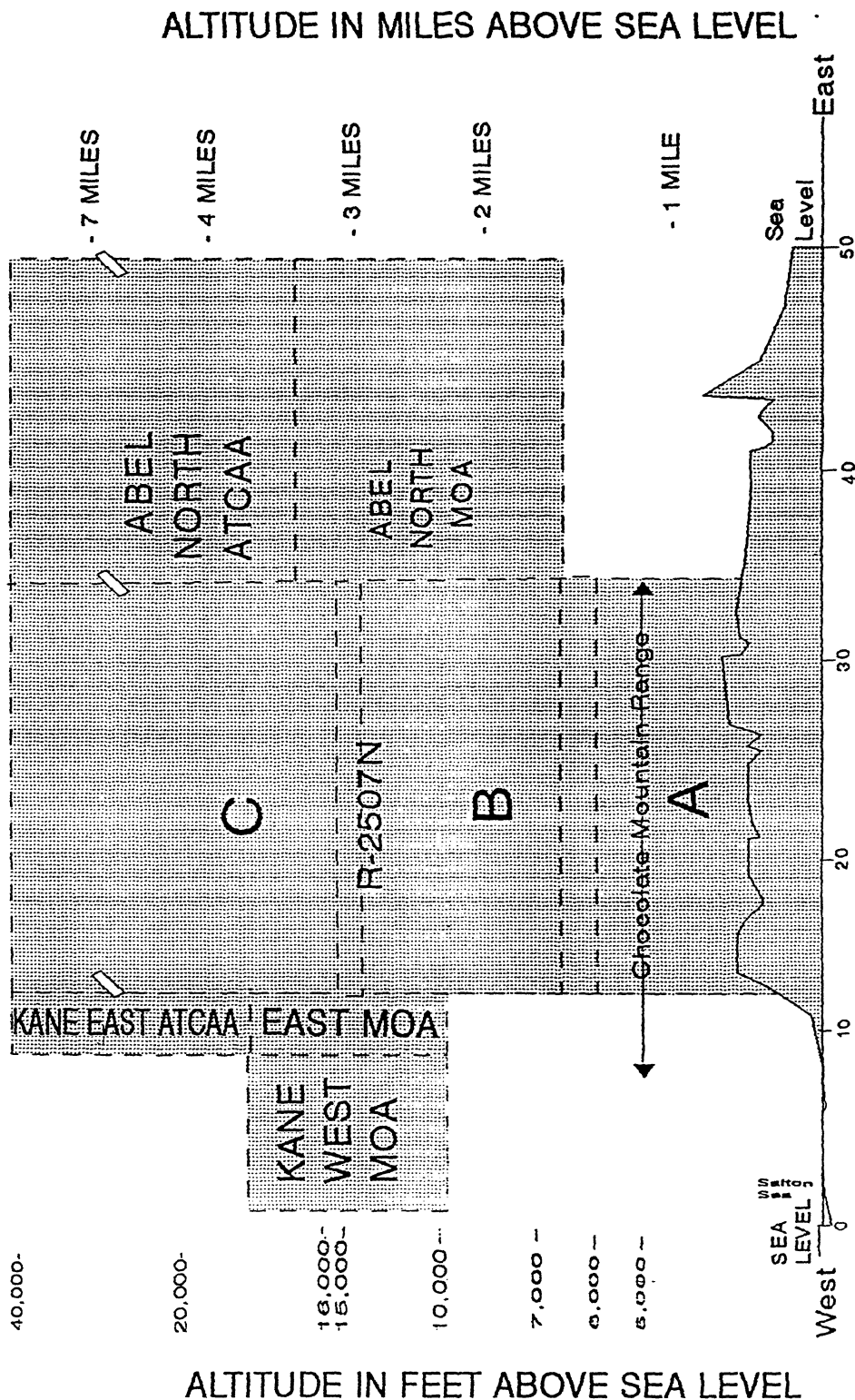
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10-40K, is designated as COMFITAEEWINGPAC out-of-control training (spin area).

2. If an event is canceled, units shall notify Yuma Range Control as soon as possible to allow airspace to be rescheduled or released to

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# CHOCOLATE NORTH CROSS SECTION





QUAIL MOA/ATCAA

COMMON NAME. Quail MOA/ATCAA

LOCATION/BOUNDARIES

<u>Latitude North</u>	<u>Longitude South</u>
33-55-00	115-00-00
34-15-33	114-00-00
33-38-00	114-00-00
33-44-00	114-30 00
33-44-00	114-00-00
To point of origin	

DESCRIPTION. MOA/ATCAA is designated for military training activities. MOA exists below Class A airspace. ATCAA exists in Class A airspace.

TYPE EXERCISE/ORDNANCE. ACM, tactical air maneuvers, air intercepts, all-weather flight training. No ordnance is authorized.

FLOOR. 10,000 feet MSL.

CEILING. FL220.

USAGE LIMITATIONS. 0700-1700 MST, Monday-Friday. Other times by NOTAM/Los Angeles Center/FSS.

RESOURCE MANAGER. CO, MCAS Yuma (Fleet Services).

SCHEDULING AUTHORITY. FACS FAC San Diego.

SCHEDULING ACTIVITY. CO, MCAS Yuma (ATC), DSN 951-2214/2215.

COMMUNICATIONS. ARTCC/tactical frequency as assigned.

SCHEDULING DOCUMENT/LEAD TIME

1. Requests for normal scheduling should be placed 60-90 days prior to the first day of the month of the requested range/airspace.
2. Speedletter (MSG/Fax) 30 days minimum.
3. Realtime scheduling (max 48 hours/min 4 hours) telephone MCAS Yuma ATC Range Scheduling. During normal range hours scheduling can be done on a range available basis.

APPLICABLE DIRECTIVES. Letter of Agreement between Los Angeles ARTCC and CO, MCAS Yuma.

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**INSTRUCTIONS**

1. Information Publication Enroute Low Altitude U.S. Chart L-3/L-4.
2. If flight is canceled, notify MCAS Yuma (ATC) so that airspace may be rescheduled or released to the FAA.

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EARLY SHELF

Per letter of agreement, MCAS Yuma Approach Control shall ensure to the maximum extent possible that Los Angeles Center will be provided the airspace within 12 nautical miles of the centerline of J-169, through R-2507N, Abel ATCAA, Imperial ATCAA, R-2306B, and R-2308A, at FL330 and above during peak traffic periods (Monday through Friday, 1430-1730Z and 2100-2300Z). See chart this enclosure.

ENCLOSURE (21)

ENCLOSURE (21)



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RANGE FREQUENCY CARD

	<u>UHF</u>	<u>VHF</u>	<u>Callsign</u>
Command Post	337.9	----	Yuma Command
Metro	349.9	----	Metro
Clearance Delivery	336.4	118.0	Clearance Delivery
ATIS	273.2	118.8	N/A
Ground	315.7	121.9	Ground
Tower	382.8	119.3	Tower
Approach	374.8	124.7	Approach
Departure	317.0	120.0	Departure
Luguna Ground	221.8	----	Ground
Luguna Tower	241.0	----	Tower
Gila Bend Tower	324.1	----	Tower
Range Control	274.0	124.15	Yuma Range
R-2301 West	274.0	124.15	Yuma Range
UTC	290.1/262.2	----	UTC
Cactus West	358.6/262.2	----	Cactus West
TACTS	311.9	----	Warwagon
	279.2	----	Sand Box
	279.2	----	City Hall
	279.2	----	Hassle Base
Aux-II	358.6/262.2	----	Cactus West
Aux-IV	122.9	----	Unicom
R-2507 North/South	274.0	124.15	Yuma Range
R-2306 A, B, C, D, and E	274.0	124.15	Yuma Range
R-2307	274.0	124.15	Yuma Range
R-2308 A, B, and C	274.0	124.15	
R-2309	----	----	
R-2510	274.0	124.15	Yuma Range
	283.0/277.2	----	Shadetree
	305.0/277.2	----	Loomlobby
R-2512	274.0	124.15	Yuma Range
	264.2	----	Inky Barley
	265.8	----	Kitty Baggage
Luke Range Control	272.1	----	Range Control
29 Palms Range Control	323.5	----	Bearmat
MOA's/ATCAA's	274.0	124.15	Yuma Range
VMFT-401 (Snipers)	272.3	----	
VMA-513 (Nitemares)	287.8	----	
VMA-311 (Cat)	262.9	----	
VMA-214 (Blacksheep)	362.9	----	
VMA-211 (Wake)	328.1	----	
3RD MAW Helo Common	263.65	----	

ENCLOSURE (22)



**ACKNOWLEDGMENT OF DANGER: RELEASE AND HOLD HARMLESS AGREEMENT**  
**BARRY M. GOLDWATER AIR FORCE RANGE (R-2301 WEST ONLY)**

(This form is subject to the Privacy Act of 1974)

**AUTHORITY.** 10 U.S.C. 5013, 5043, AND 8012

**PRINCIPLE PURPOSE.** Indicated certification by an individual or corporation to hold the United States Government and any Barry M. Goldwater Air Force Range leasees harmless in consideration of Goldwater Air Force Range (R-2301 West Only).

**ROUTINE USES.** Used to gain recreation or non-military access to the Barry M. Goldwater Air Force Range (R-2301 West only).

**DISCLOSURE IS VOLUNTARY.** Failure to provide this information would result in an individual or corporation being denied access to the Barry M. Goldwater Air Force Range (R-2301 West only).

-----  
**PLEASE READ AND INITIAL EACH BLANK**

\_\_\_\_1. The Barry M. Goldwater Air Force Range (BMGR) contains the danger of property damage and permanent, painful, disabling, and disfiguring injury or death due to high explosive detonations from falling objects such as aircraft, aerial targets, live ammunition, missiles, bombs, etc... There are also physical injury and health dangers from ground and aerial Laser (Light Amplification by Stimulated Emission of Radiation) and other electromagnetic emissions.

\_\_\_\_2. The BMGR contains the danger of property damage and permanent, painful, disabling, and disfiguring injury or death due to the presence of expended, but still live bombs, rockets, cannon rounds, flares, and other types of warheads. Unexploded munitions may be encountered anywhere within the Barry M. Goldwater Air Force Range: lying on the ground partially or completely buried. These munitions can still explode though they may have lain in the desert for decades.

\_\_\_\_3. The BMGR contains the danger of injury or death from the presence of old mine shafts and other openings or weaknesses in the earth, as well as other natural and/or man-made conditions which are too numerous to recite herein.

\_\_\_\_4. The BMGR cannot feasibly be marked to warn of the location and nature of each danger. Further, I have been warned that I am responsible for finding my own way around the Barry M. Goldwater Range. There are no road signs or other navigational aids to assist visitors.

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\_\_\_\_5. The BMGR occupies one of the most extreme environments in North America. I have been advised to guard against the dangers presented by the Barry M. Goldwater Air Force Range's rugged landscape, high temperatures (daytime temperatures can exceed 120 degrees), remoteness, and other threats.

\_\_\_\_6. The BMGR has no services. If I get lost, if my vehicle breaks down, or in the case of any emergency, I AM ON MY OWN. There are no regular patrols of the Barry M. Goldwater Air Force Range. I certify that I have informed friends or family of my anticipated route and time of return from BMGR.

\_\_\_\_7. The BMGR contains no sources of safe drinking water. I have been advised to pack sufficient water, food, and first aid supplies.

\_\_\_\_8. Although rare, flash floods occur on the BMGR. I have been warned not to camp in washes during the threat of rain or to attempt to cross flooded channels by vehicle or foot. Mud or soft sand can be impassable, even for four-wheel drive vehicles.

\_\_\_\_9. I have been warned that I may confront venomous reptiles and insects on the BMGR.

\_\_\_\_10. I have been warned that I am responsible to know and abide by all federal, military and state laws, and regulations pertaining to use of BMGR.

Upon my own initiative therefore, and at my own risk, I accept permission to enter this area and in consideration of such permission do, for myself, my spouse, my children, my heirs, personal representatives, and assignees of the same; remise, release, and forever discharge as well as agree to indemnify and hold harmless the United States Government, any leasee therefrom, any individual officer, agent, employee of director thereof from any claim of liability for death, property damage arising out of my usage of or presence upon said Barry M. Goldwater Range in accordance with permission to enter thereon.

I further affirm that I will never prosecute or assist in prosecuting any civil action against the United States Government. The United States Marine Corps, Marine Corps Air Station Yuma, or any of their agents, employees, servicemembers, contractors, or leasees for claim or liability arising from my entry to the BMGR.

---

Signature



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\_\_\_\_\_  
Name (Print or type)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City/State/Zip Code

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
Work Telephone

\*Note: If your spouse is going with you at any time, he/she can be added to your hold harmless. This also includes any individuals under the age of 18. A guardian's signature however is required.

\_\_\_\_\_  
Spouses Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Childrens Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Childrens Name

\_\_\_\_\_  
Signature

Please fill in the following  
State Drivers License Number: \_\_\_\_\_

Description of Vehicle(s):

Veh #1: Year \_\_\_\_\_ Style \_\_\_\_\_ License # \_\_\_\_\_

Make \_\_\_\_\_ Color \_\_\_\_\_ State \_\_\_\_\_

Veh #1: Year \_\_\_\_\_ Style \_\_\_\_\_ License # \_\_\_\_\_

Make \_\_\_\_\_ Color \_\_\_\_\_ State \_\_\_\_\_

Note: Fill out the next three lines if you and/or your group are only planning to take one single trip.

Itinerary: (Describe route(s) to be taken and campsite(s) with date(s).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Period Requested: From: \_\_\_\_\_ To: \_\_\_\_\_  
date date

# of Persons: \_\_\_\_\_

ENCLOSURE (23)



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RANGE PERMIT FOR RECREATIONAL ACCESS TO R-2301 WEST

RANGE PERMIT #\_\_\_\_\_

AUTHORITY: 10 USC 8012

PRINCIPLE PURPOSE: To document request for recreation access to the GOLDWATER AIR FORCE RANGE COMPLEX.

DISCLOSURE IS VOLUNTARY: Failure to provide this information would result in an individual being denied access to the GOLDWATER AIR FORCE RANGE COMPLEX.

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

ARE AUTHORIZED ENTRY INTO THE BELOW DESIGNATED BARRY M. GOLDWATER RANGE COMPLEX.

\_\_\_\_\_  
VALID ONLY with authorization obtained Mon through Fri 8am to 3pm at (520) 341-3402. Each member in the party must have a "HOLD HARMLESS" agreement on file at MCAS Yuma. Please call again after you depart the range so that we may log you off of the range.

\_\_\_\_\_  
EXPIRATION DATE

\_\_\_\_\_  
OFFICER IN CHARGE

\_\_\_\_\_  
DATE

1. Above is an example of a Range Permit that will be issued after a Hold Harmless Agreement (ENCLOSURE 23) has been completed and returned to MCAS Yuma Range Management. Prior to entry onto the BMG Range, an authorization number must be obtained and written on the backside of the Range Permit. The authorization number is valid for one trip into the BMG Range complex regardless of the Range Permit expiration date and can be obtained from MCAS Yuma Range Management via phone. After exiting the BMG Range contact MCAS Yuma Range Management via phone to logoff. There is an answering machine to take the calls during off work hours. Clearly state your Range Permit and authorization numbers.

ENCLOSURE (24)



From: Range Management Department  
To: AIG

27 Mar 96

Subj: UPDATES TO STATION ORDER 3710.6H

Ref: StaOrd 3710.6H

1. The following is a list of changes that are to be made to the Yuma Range regulations, (StaOrd 3710.6H).

Enclosure	Page	Par.	Mistake	Correction
9	7	d 2	Tgt's;12N-15N PH	chg to PG
3	1	Loc/Bnd		
4	1	Loc	Grid ID	QF
Main Order	8	10	Transpose	Copy cost par. into encl. 9 under ICM Box
6		9	Add	Holtville Airport
9	20		No Inert line	Add Inert Line to diagram
Main order			Add	"corrections/additions to this order to Yuma Range Mgmt
9	6		Add	Add OP 6A PH 405046
9	9		Add	Add Lat/Long's to ICM Box: 33-23.67 N / 115-23.23 W 33-23.12 N / 115-21.95 W 33-23.66 N / 115-21.94 W 33-23.13 N / 115-23.24 W
2,5			Add	Add diagram that reflects; MS CW AUX 2, Gila Mts, TACTS Airfield, I-10, cities, Cabeza Preita, Mohawk, Coyote Peak, etc.
9	10	c.	Add	Add 40mm all rounds
3	1,2	scheduling	Add	Add WISS # 2025/2466 for MLT/Laser



Enclosure	Page	Par	Mistake	Correction
3	6	MLT		Add # 10 as written," Schedule MLT operations with WISS @ 2025 or 2466
3	6	Laser g.		Add # 2466 to DSN
9	10	Dispenser		CBU-99 after MK 7

